

	<b>Restricted Materials at WCF</b>		Revision: Initial
	Document Control Number: 75W-08.0-04		Date: 7/11/17
<b>EMS Procedure</b>	Responsible Organization: WCF EHS Branch		
	Approved By: Virginia Baldwin	Signature: <electronically signed>	

**1.0 Purpose:**

To define a list of prohibited or restricted chemicals or materials applicable to the Bureau of Engraving and Printing (BEP) Western Currency Facility (WCF).

**2.0 Scope:**

Applies to all operations and services at BEP WCF.

**3.0 Definitions:**

- 3.1 Acutely Toxic – Causes adverse effects occurring following oral or dermal administration of a single dose of a substance, or multiple doses given within 24 hours, or an inhalation exposure of 4 hours.
- 3.2 Bioaccumulative – The accumulation of toxins within the population of an ecosystem. Bioaccumulation occurs when an organism absorbs a toxin at a faster rate than at which it is lost through catabolism and excretion.
- 3.3 Carcinogenic – Causes or has the potential ability to cause cancer.
- 3.4 Chemical – means any element, chemical compound or mixture of elements and/or compounds.
- 3.5 Compound – a substance comprised of two or more elements.

**4.0 Roles and Responsibilities:**

- 4.1 The WCF Environmental Health and Safety (EHS) Branch Manager is responsible for:
  - 4.1.1 Assuring the information on this list of restricted or prohibited materials is current with respect to all relevant EHS programs;
  - 4.1.2 Submitting changes to the list of restricted or prohibited materials in a timely manner;

- 4.1.3 Acting as liaison between EHS Branch and Office of Acquisition and Contracting Officer's Representatives (CORs) with regard to this list of restricted or prohibited materials;
- 4.1.4 Screening SDSs for chemical products proposed to be brought onsite against this list; and
- 4.1.5 Permitting exceptions to these listed restricted or prohibited materials (exceptions must be in writing and signed by the WCF EHS Branch Manager).

4.2 CORs are responsible for:

- 4.2.1 Referencing this list of restricted or prohibited materials, as applicable, when defining contract requirements; and
- 4.2.2 Communicating between contractors and the EHS Branch with questions or comments regarding this list of restricted or prohibited materials.

## 5.0 **Materials Lists**

### 5.1 Prohibited Chemicals

Chemicals and materials that are prohibited from future storage and use on BEP WCF property:

- Lead Based Paint
- Asbestos CAS No. 1332-21-4
- Poly Chlorinated Biphenyls (PCBs)
- Mercury CAS No. 7439-97-6
- Chlorinated Solvents (except lab quantities used in QA Lab)
- Halogenated Solvents (except lab quantities used in QA Lab)
- Cadmium (except for Ni-Cad batteries)
- R-11 (Freon 11) CAS No. 75-69-4
- Benzene CAS No. 71-43-2
- Arsenic CAS No. 7440-38-2
- Cyanide CAS No. 57-12-5
- Hydrofluoric Acid CAS No. 7664-39-3
- Halon CAS No. 75-63-8
- Materials, that when disposed of, will create an acutely hazardous waste as identified in 40 CFR 261.33(e) – hazardous waste numbers P001 through P205.
- Training ammunition that contains lead (including lead primers)  
Note: police officers are allowed to carry leaded ammunition in their service weapons while on duty and may discharge leaded ammunition in the act of duty.

- Instruments or articles that contain ionizing radiation sources which may require general or specific licensing by either the Nuclear Regulatory Commission (NRC) or an authorized agreement state are prohibited. Exceptions will only be made after review and approval by the EHS Branch.

**5.2 Restricted Materials and Chemicals:**

These are Materials and Chemical constituents or compounds which require special approval.

In addition to those that are prohibited (in 5.1 above), the BEP WCF has a commitment to avoid or reduce the use of hazardous air pollutants and/or chemicals or chemical compounds that are acutely toxic, persistent, bioaccumulative, or carcinogenic. Such chemicals or chemical compounds are found in various regulatory listings including the following:

**5.2.1 Hazardous Air Pollutants (HAPs) listed in 40 CFR 63.74, including:**

While the BEP WCF has not has not applied for alternative emission limitations nor is it seeking to achieve early reductions (under 63.74) for any of the hazardous air pollutant standards (HAPs) in 40 CFR 63, the following list of HAPs are among those that the BEP WCF seeks to restrict when possible:

<b>CAS No.</b>	<b>Compound</b>
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
107131	Acrylonitrile
92875	Benzidine
N050	Beryllium compounds
542881	Bis(chloromethyl) ether
106990	1,3-Butadiene
57749	Chlordane
532274	2-Chloroacetophenone
N090	Chromium compounds (above and beyond what is already present associated with electroplating)
107302	Chloromethyl methyl
0	Coke oven emissions
334883	Diazomethane

<b>CAS No.</b>	<b>Compound</b>
132649	Dibenzofuran
96128	1,2-Dibromo-3-chloropropane
111444	Dichloroethyl ether (Bis(2-chloroethyl) ether)
79447	Dimethyl carbamoyl chloride
122667	1,2-Diphenylhydrazine
106934	Ethylene dibromide
151564	Ethylenimine (Aziridine)
75218	Ethylene oxide
76448	Heptachlor
77474	Hexachlorocyclopentadiene
118741	Hexachlorobenzene
302012	Hydrazine
N450	Manganese compounds
N458	Mercury compounds
60344	Methyl hydrazine
624839	Methyl isocyanate
N495	Nickel compounds (above and beyond what is already present associated with electroplating)
62759	N-Nitrosodimethylamine
684935	N-Nitroso-N-methylurea
56382	Parathion
75445	Phosgene
7723140	Phosphorus
75558	1,2-Propylenimine
1746016	2,3,7,8-Tetrachlorodibenzo-pdioxin
8001352	Toxaphene (chlorinated camphene)

CAS No.	Compound
75014	Vinyl chloride

#### 5.2.2 EPA Toxic Release Inventory (TRI) Chemical list

Currently there are approximately 595 individually-listed chemicals and 31 chemical categories (including four categories containing 68 specifically-listed chemicals). The TRI list is found at 40 CFR 372.

#### 5.2.3 TRI Persistent Bioaccumulative and Toxic (PBT) Chemical list

There are 16 PBT chemicals and 4 PBT chemical compound categories which are subject to reporting under the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313.

#### 5.2.4 List of Carcinogens Listed by OSHA

OSHA has listed 13 carcinogens in 29 CFR 1910.1003

- 4-Nitrobiphenyl, Chemical Abstracts Service Register Number (CAS No.) 92933;
- alpha-Naphthylamine, CAS No. 134327;
- methyl chloromethyl ether, CAS No. 107302;
- 3,4-Dichlorobenzidine (and its salts) CAS No. 91941;
- bis-Chloromethyl ether, CAS No. 542881;
- beta-Naphthylamine, CAS No. 91598;
- Benzidine, CAS No. 92875;
- 4-Aminodiphenyl, CAS No. 92671;
- Ethyleneimine, CAS No. 151564;
- beta-Propiolactone, CAS No. 57578;
- 2-Acetylaminofluorene, CAS No. 53963;
- 4-Dimethylaminoazo-benzene, CAS No. 60117; and
- N-Nitrosodimethylamine, CAS No. 62759.

#### 5.2.5 Other chemicals or materials that require special approval:

- Methyl Isobutyl Ketone (MIBK);
- R- 113 (Freon 113);
- Cleaning compounds containing no more than (1) 0.42 pound of VOC per gallon of solution (lb. VOC/gal solution), as applied; or composite partial vapor pressure of the cleaning solution no greater than 8.0 millimeters of mercury at 20 degrees Celsius (68 degrees Fahrenheit).
- Ethylene Glycol

#### 5.2.6 Exceptions:

On a case by case basis, exceptions may be granted for chemicals identified in 4.1 or 4.2 that are contained within an article, as defined in 40 CFR 372.3, where those prohibited or restricted chemicals are chemically bound in the article.

Per 40 CFR 372.3, an Article means a manufactured item: (1) Which is formed to a specific shape or design during manufacture; (2) which has end use functions dependent in whole or in part upon its shape or design during end use; and (3) which does not release a toxic chemical under normal conditions of processing or use of that item at the facility or establishments.

**6.0 Related Documents**

- EHS Requirements for Large Equipment Purchases (document no. 75W-08.0-03)
- Hazard Communication Program (document no. 75W-05.0-01)
- EHS Boilerplate Requirements for Construction and Services Contractors (document no. 75W-08.0-02)

REVISION	6.0 PURPOSE OF REVISION	EFFECTIVE DATE