



NAVAL
POSTGRADUATE
SCHOOL

Hazardous Material Procurement Awareness Training for Contracting Specialists, Purchase Card Holders and Authorizing Officials

Monterey, California

WWW.NPS.EDU





Procurement of Hazardous Materials

- Naval Postgraduate school regulates the procurement of Hazardous Materials in a manner consistent with Navy and Federal regulations.
- Following approved regulations and policies minimizes the risk to NPS personnel, the public and the environment.
- Contracting, Purchasing and Authorizing Officials can provide an additional layer of protection when a questioning attitude is maintained.



- Commodity codes are now required for all requisitions
 - Identifies hazardous constituents in requisition.
 - Requisitioner shall be cognizant of purchase content
- Safety Officers ask that personnel in the approval process maintain a questioning attitude
 - General Training follows but it is impossible to list every eventuality
 - Best approach is a questioning attitude
 - If in doubt, call one of us or just send it our way
 - Safety@NPS.edu or x7771



Items for safety review:

- Sources of ionizing radiation
- Sources of RF energy above an average transmit power of 5W
- Class 3 or 4 Lasers
- UAVs/UASs
- Explosives
- BioSafe Level 1-4 agents or material
- Items related to research on animal subjects
- Items related to research on human subjects
- Batteries (Specific types or large orders)
- HAZMAT
 - Controlled chemicals (list is extensive – see 29 CFR 1910 if in doubt)
 - Compressed gases (above 40 psi)



- The Radiological Affairs Support Program, or RASP, applies to all sources of ionizing radiation at NPS
- Federal rules classify radioactive material into 3 categories: Specifically Licensed, General Licensed, Exempt from License
- Per Navy regulation, all 3 categories require a control plan
 - This can be confusing, material that isn't controlled at a civilian institution probably is controlled at NPS. In doubt, Call! (x2181)



Radiation-What to look for

- Machine and material sources of radiation are common in our society, in general we're looking for words and phrases such as:
 - Radioactivity, Radiation, Ionizing Radiation
 - Radioactive material, radioactive sources, check sources
 - Contamination, Activity, Loose Surface Contamination
 - NRC License, Agreement State License, Radioactive Material Permit
 - Radiation Producing Machines, X-Ray, Electron Microscope, X-Ray Fluorescence, X-Ray Diffraction, Accelerator
 - Self-illuminating dials, smoke detectors and welding rods



RF – What to Look for

- Radio, RF, Radiofrequency, EM, Electromagnetic
- Transmitter
- Microwave,
- Terahertz, or THz
- Megahertz, or MHz
- Gigahertz, or GHz
- Radiant, Radiant Energy
- Radar, Pulsar
- Antenna
- Radiation
- Spectrum, MultiSpectrum, or Full Spectrum
- Phased array
- Band or multiband
- Satellite communications
- Wave guides



LASER – What to Look For

- Laser
- Class 3, class iii, class 3a, Class 3R, Class 3B, Class 4
- LIDAR
- Optics or Optical
- Power ratings such as Watt, mW,
- Pulse, Pulsed
- Nanosecond, femtosecond, attosecond
- Continuous Wave
- Helium Neon
- Spectrum, visible, invisible
- Beam
- Stimulated emissions
- Coherent



UAVs/UASs – What to Look For

- Flying
- Orbiting
- Dwell, extended dwell
- Remotely piloted or remotely controlled
- Autonomous (when associated with other obvious flight terms)
- Aerial



Explosives – What to Look For

- Explosive, Explosion
- Ordnance
- Charge, Shaped charge
- CCD
- HE
- Ammunition, live ammunition, ammo, cal , caliber
- Demolition
- Weapon
- Mines
- Anti-personnel
- Detonate, Detonator, IED



BioSafe Controlled Items

- Toxin
- Live agent
- BioSafe, Biosafety, BioHazard
- Culture
- Select Agent
- CDC controlled or regulated
- Pathogen
- Communicable
- Infectious



Batteries – What to Look For

- Lithium, Lithium Ion, LiPo
- NiCAD or Nickel Cadmium
- Rechargeable
- Extended Charge
- Lead or Lead/Acid



HAZMAT – What to Look For

- Hazardous
- Chemical
- Compound, reagent
- Controlled
- Regulated
- Pyro, Pyrotechnic, Pyrophoric
- Words ending in “ane”, “ine” “ene”
- Fuel
- Aerosol
- Combustible, flammable
- Oxidizer
- Corrosive



- Reproductive risk
- Carcinogen
- “Caution”
- “Danger”
- “Hazard”
- Warning Pictograms





6 Elements of the GHS Label Format

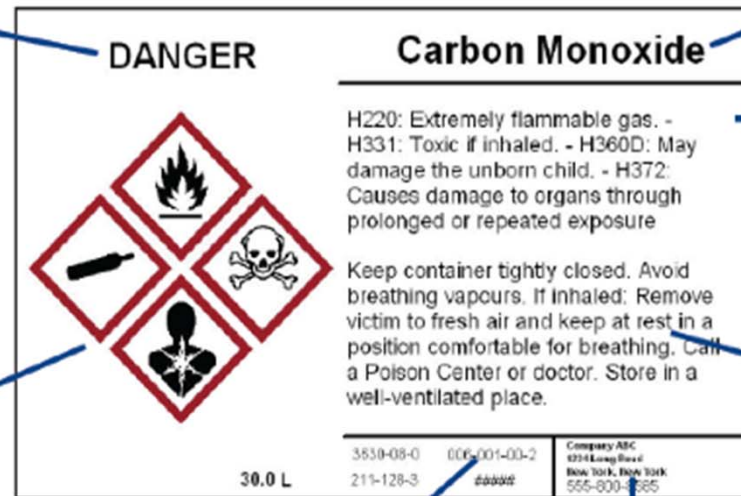
Six Elements of the GHS label format

1. Signal Word:

Indicates relative level of hazard. "Danger" is used for most severe instances, while "Warning" is less severe.

2. Symbols (Hazard Pictograms):

Convey health, physical and environmental hazard information with red diamond pictograms. May use a combination of one to five symbols.



**Additional Product Identifiers*

3. Product Name or Identifiers*

4. Hazard Statements:

Phrases that describe the nature of hazardous products and oftentimes the degree of hazard.

5. Precautionary Statements:

Phrases associated with each hazard statement, that describe general preventative, response, storage or disposal precautions.

6. Manufacturer Information:

Company name, address & telephone number.



- Team Approach
- Safety in Layers
- If in Doubt.....Send it out
- Safety@NPS.edu
- Questions ?
- Thank you!