

 CRFD	Castle Rock Fire and Rescue Department
	<i>LIFE SAFETY DIVISION GUIDELINE</i>
	Subject: Hazardous Materials Reporting Guideline Date initiated: 01-01-2015 Date revised: 12-14-2015
Approved: Richard Auston, Division Chief/Fire Marshal (FM) Life Safety Division	

APPLICABLE CODES AND STANDARDS:

- IFC, Edition 2012

INTENT:

The intent of this document is to establish accurate hazardous materials reporting for hazardous materials (HAZMAT)(chemicals) as required by the IFC.

SCOPE:

The scope of this document is to provide the necessary steps in reporting hazardous materials at the businesses.

DEFINITIONS:

- CDPHE: Colorado Department of Health and Environment
 HAZMAT: Hazardous Materials
 IFC: International Fire Code
 NFPA: National Fire Protection Association

ATTACHMENTS:

- 1) NONE

RESPONSIBILITY:

It is the responsibility of the Life Safety Division to assist those businesses with HAZMAT in understanding and following this guideline.

CODE BACKGROUND:

Facilities within Castle Rock Fire and Rescue Department's (CRFD) jurisdiction containing certain quantities and types of hazardous materials (chemicals) are required to report to the Hazardous Materials Reporting WEB site that is managed by the Arapahoe/Douglas County HAZMAT Response Team and Douglas County Sheriff's Office. The HAZMAT reporting application can be accessed at:

<https://apps.douglas.co.us/apps/hazmat>

This reporting information is used to aid emergency personnel responding to a facility during a fire, chemicals release, or exposure involving hazardous materials. The information is also used by CRFD to aid in determining whether your facility is in compliance with the International Fire Code (IFC).

INITIAL COMPLIANCE STEPS:

The following steps must be taken by all facilities that have hazardous materials (chemicals) and are subject to inspection by the fire department and other regulatory agencies:

- 1) Complete a detailed inventory of ALL chemicals present at the facility. The inventory should include the following:
 - a. The general location of the chemicals (ie: warehouse, storage, use, etc);
 - b. The MAXIMUM amount ever anticipated on site;
 - c. Container type (ie: drum, bottle, bag, etc).

- 2) Collect Safety Data Sheets (SDS) for each chemical present;
 - a. SDS were previously referred to as Material Safety Data Sheets (MSDS), and are required for each chemical at the facility;
 - b. SDS's can be obtained from the supplier, and are often available off the WEB;
 - c. The SDS's must be organized and placed in an approved location where they are accessible to responders and workers at ALL times.

- 3) Determine the National Fire Protection Association (NFPA) 704 or Hazardous Materials Identification System (HMIS) ratings for each chemical;
 - a. These are often listed on the SDS and may also be on the packaging label of the chemicals;
 - b. This labeling tool is an excellent tool for your employee training to aid the workers in understanding the hazards the chemicals pose in their work environment.

NOTE: The collection and availability of the SDS for each chemical is a requirement the Federal, State and Local laws, OSHA regulations, and the IFC. These SDS **must** be accessible at all times, must be made available to employees, responders and the community upon request.

SECONDARY COMPLIANCE STEPS:

Once the INITIAL COMPLIANCE STEPS noted above have been completed the facility needs to evaluate the chemicals they utilize and determine the following:

- 1) Determine if the chemicals identified in the inventory are utilized in the processes at the facility:
 - a. If the answer is NO: they should be properly disposed of in accordance with Federal, State, and Local regulations, and disposal manifests should be retained for the required time frames.
 - b. If the answer is YES: the following must be completed.

- 2) Evaluate the SDS to determine the following:
 - a. If there are any special storage, use or handling procedures that are recommended by the manufacturer of the chemicals.
 - i. These procedures should be implemented to reduce the potential of an incident or exposure.
 - b. If there are any specific manufacturer recommendations pertaining to Personal Protective Equipment (PPE) that must be utilized by workers or those handling or exposed to the chemicals.
 - i. If there are special PPE requirements these should be implemented to reduce the potential of an exposure or workers compensation claim.

- 3) Complete training to the workers on the following:
 - a. Train the employees on the location and information contained in the SDS's;
 - b. Train the workers on any special storage, use or handling procedures pertaining to the chemicals they use or may be exposed to;
 - c. Train the workers on any required PPE that must be used;
 - d. Train the workers on emergency procedures that must be followed in the event of an exposure, spill or leak of the chemicals;
 - e. Train the workers on the NFPA 704 or HMIS labeling system, which can be used as a quick assessment of the Health, Fire, Reactivity and Other hazards the chemical may pose. Each container in the facility should display the NFPA 704 or HMIS label information.
 - i. The NFPA or HMIS rating / hazard table should be posted in the workplace for workers to become familiar with the hazard ratings.
 - ii. See the attached NFPA 704 labeling table attached.
 - f. Maintain employee / employer signed training records for the workers for the required 30 years.

COUNTY HAZMAT REPORTING COMPLIANCE STEPS:

In conjunction with the INITIAL and SECONDARY COMPLIANCE STEPS noted above, the facility needs to evaluate the chemicals they utilize and determine the following:

- 1) Determine the hazard classifications of the chemicals. These hazard classifications can be determined by carefully reading the SDS information and comparing it to the attached HAZARD CLASSIFICATION / REPORTABLE QUANTITIES TABLE.
 - a. Some chemicals may exist in several hazard classifications (ie: Flammable Liquid, Corrosive, Oxidizer).
- 2) Once the hazard classification(s) have been determined the following need to be completed:
 - a. Determine if the MAXIMUM amount of the chemical anticipated to exist at the facility at any time EXCEEDS the reportable amounts shown in the HAZARD CLASSIFICATION / REPORTABLE QUANTITIES TABLE, if they EXCEED the amount they must be reported on the Hazardous Materials Reporting WEB site.

<https://apps.douglas.co.us/apps/hazmat>

- b. If the MAXIMUM amount of the chemical anticipated to exist at the facility at any time DO NOT EXCEED the reportable amounts shown in the HAZARD CLASSIFICATION / REPORTABLE QUANTITIES, they do NOT need to be reported on the WEB site, however all the requirements in the INITIAL and SECONDARY COMPLIANCE STEPS must still be maintained and updated on an annual basis.

ACCESSING THE COUNTY HAZMAT REPORTING WEB SITE:

If you are reporting for the FIRST time on the WEB site you will be required to establish and register a NEW facility and add a System Administrator and Emergency Contacts. Once the facility is established an email will be sent to the fire department to approve the facility. Once approved you will receive an email notification and the chemical reporting can begin.

If your business has been through this process before but can't log in now, please follow these steps:

1. Confirm whether you still need to report by comparing the quantities of hazardous materials in use and/or storage at your facility to the thresholds in the HAZARD CLASSIFICATION / REPORTABLE QUANTITIES table. If you maintain inventories below the thresholds, you are not required to report and the fire inspector will verify this information during inspections.
2. If you are required to report but no longer have access to your account, provide your fire inspector with the name and email address of the person you would like to be your account manager. This information must either be submitted on company letterhead or gathered by the inspector in person at the business.
3. When the fire inspector has entered the new account manager's information into the web application, a system-generated email will be sent to them. They should follow the instructions provided in that email to re-establish a password and gain access to the application. Please make sure they retain the user name and password for future use.
4. Your account manager will then be able to log in, view the information for accuracy, update as needed, and submit the information for approval.
5. You're done! A representative of CRFD will review the information you enter and may contact you for clarification about certain hazardous materials or scheduling an inspection of your facility.

If the hazardous materials you keep in use and/or storage change, please log in and update the information as often as necessary. You will also receive periodic reminders from the system to check the accuracy of the information you originally entered.

If you ever have questions or concerns related to the use and storage of hazardous materials, please contact our office for assistance. Thank you for your cooperation in keeping us informed about hazardous materials in our community!

Contact us at any time via email at:

FPO@crgov.com

HAZARD CLASSIFICATION / REPORTABLE QUANTITIES TABLE:

HAZARD CLASS (1)	REPORTABLE AMOUNT (1)	TYPICAL NFPA 704 or HMIS rating (3)
AEROSOLS (Typically found in 11 or 14 oz cans)	500 pounds (greater than 500 cans of Aerosols) (1 oz = .0626 lb)	Flammability = 4
COMPRESSED GASES (Found in cylinders or tanks at high pressures) -173.2 cf in a 20 pound cyl -346.4 cf in a 40 pound cyl	Corrosive Gas = 200 cubic feet Flammable Gas = 200 cubic feet Highly Toxic Gas = ANY AMOUNT Inert Gas = 6,000 cubic feet Oxidizing (Oxygen) = 504 cubic feet Pyrophoric Gas = ANY AMOUNT Toxic Gas = ANY AMOUNT	Other = COR Flammability = 3 or 4 Health = 3 or 4 Health = 0 or 1 Other = OXY READ SDS Health = 1 or 2
CORROSIVES LIQUIDS	Corrosive Liquids = 55 gallons Corrosive Solids = 1000 pounds	Other = COR
CRYOGENIC LIQUIDS (Found in special tanks and are stored at temperatures in the range of -230 deg F)	Flammable = 1 gallon Inert = 60 gallons Oxidizing (Liquid Oxygen) = 10 gallons Physical or Health Hazard = ANY AMOUNT	Flammability = 3 or 4 Other = CRY Other = OXY or CRY Health = 0, 1, 2, 3, 4
COMBUSTIBLE LIQUIDS (Combustible liquids have FLASH points at or above 100 degreesF. (look for the Flash Point in the SDS)	-Class II (Flash point between 100-140 degF) -Class IIIA (Flash Point 140-200 degF) -Class IIIB (Flash Point greater than 200 degF) REPORTABLE AMOUNTS: GREATER THAN 120 gallons	Flammability = 1 or 2
EXPLOSIVES	ANY AMOUNT OF EXPLOSIVES MUST BE REPORTED -Including fireworks in any amount -Small arms ammunition / primers >10,000 -Black powder in amounts greater than 20 pounds	Flammability = 3 or 4
FLAMMABLE LIQUIDS (Flammable liquids have FLASH points at or below 100 degreesF. (look for the Flash Point in the SDS)	-Class 1A (Flash point <73 deg / Boiling <100) -Class 1B (Flash point <73 deg / Boiling >100) -Class 1C (Flash point 73-100 deg) REPORTABLE AMOUNTS: Class 1A = 30 gallons or greater Class 1B or 1C 120 gallons or greater	Flammability = 3 or 4
HIGHLY TOXIC Materials (2) (Includes chemicals defined by the EPA as Extremely Hazardous Substances (EHS)	Read the HEALTH section of the SDS to determine the health hazards REPORTABLE AMOUNT: ANY AMOUNT MUST BE REPORTED	Health = 3 or 4
OXIDIZING MATERIALS (Oxidizers react violently when heated or when they contact other chemicals)	LIQUIDS (gallons) SOLIDS (pounds) Class 4 Oxidizer = ANY AMOUNT Class 3 Oxidizer = 1 gallon / 10 pounds Class 2 Oxidizer = 10 gallons / 100 pounds Class 1 Oxidizer = 55 gallons / 500 pounds	Other = OXY Reactivity = 4 Reactivity = 3 Reactivity = 2 Reactivity = 1

HAZARD CLASSIFICATION / REPORTABLE QUANTITIES TABLE: (Continued)

<p>ORGANIC PEROXIDES (Organic Peroxides present an explosion hazard)</p>	<p>Unclassified Detonable: Any amount. Class I: Any amount. Class II: >50 pounds or 5 gallons. Class III: >125 pounds or 12 gallons. Class IV or V: Not required to report</p>	<p>Reactivity = 4 Reactivity = 3 Reactivity = 2 Reactivity = 1</p>
<p>PYROPHORIC MATERIALS (React violently when exposed to air at or below 130 degrees F)</p>	<p>ALL AMOUNTS MUST BE REPORTED</p>	<p>Reactivity = 4</p>
<p>TOXIC MATERIALS (2) (Chemicals that pose a health risk but are not included in Highly Toxic)</p>	<p>Read the HEALTH section of the SDS to determine the health hazards REPORTABLE AMOUNT: Liquids = 10 gallons or greater Solids = 100 pounds or greater</p>	<p>Health = 1 or 2</p>
<p>UNSTABLE REACTIVE (Chemical other than explosives that will undergo a violent change when exposed to heat, friction or shock)</p>	<p>Read the HEALTH section of the SDS to determine the health hazards. REPORTABLE AMOUNT: ANY AMOUNT MUST BE REPORTED</p>	<p>Reactivity = 3 or 4</p>
<p>WATER REACTIVE (Chemical that when they come into contact with water react violently)</p>	<p>Read the HEALTH section of the SDS to determine the health hazards. REPORTABLE AMOUNT: ANY AMOUNT MUST BE REPORTED</p>	<p>Other = WATER REACTIVE or W (“W” with a line through it)</p>

1. Please note that a single material may fit into more than one category, and the cumulative quantity of multiple materials with the same properties must be considered.
2. As determined by the Environmental Protection Agency. See this link or visit www.epa.gov for the current list.
3. See the attached NFPA 704 or HMIS Rating Table and read the Safety Data Sheet (SDS) for the chemical to assist in obtaining the ratings and classification of the chemical.

INSPECTIONS:

The Castle Rock Fire & Rescue Department – Life Safety Division will complete a site inspection once the chemical information has been reported on the County WEB site.