

United States  
Environmental Protection  
Agency

Solid Waste and  
Emergency Response  
(5305W)

EPA745-R-98-007  
June 1998



# **RCRA, Superfund & EPCRA Hotline Training Module**

**Introduction to:**

**Toxics Release Inventory:  
Exemptions  
(EPCRA §313; 40 CFR Part 372)**

**Updated February 1998**



#### DISCLAIMER

This document was developed by Booz-Allen & Hamilton Inc. under contract 68-W0-0039 to EPA. It is intended to be used as a training tool for Hotline specialists and does not represent a statement of EPA policy.

The information in this document is not by any means a complete representation of EPA's regulations or policies. This document is used only in the capacity of the Hotline training and is not used as a reference tool on Hotline calls. The Hotline revises and updates this document as regulatory program areas change.

The information in this document may not necessarily reflect the current position of the Agency. This document is not intended and cannot be relied upon to create any rights, substantive or procedural, enforceable by any party in litigation with the United States.

#### **RCRA, Superfund & EPCRA Hotline Phone Numbers:**

National toll-free (outside of DC area)	(800) 424-9346
Local number (within DC area)	(703) 412-9810
National toll-free for the hearing impaired (TDD)	(800) 553-7672

The Hotline is open from 9 am to 6 pm Eastern Time,  
Monday through Friday, except for federal holidays.



# TOXICS RELEASE INVENTORY EXEMPTIONS

## CONTENTS

1. Introduction .....	1
2. Regulatory Summary .....	3
2.1 <u>De Minimis</u> .....	3
2.2 Article .....	7
2.3 Use of Toxic Chemicals .....	8
2.4 Laboratory Activities .....	10
2.5 Certain Owners and Operators of Leased Property .....	11
2.6 Coal Extraction and Metal Mining Overburden .....	11
3. Federal Facilities.....	13
4. Module Summary .....	15
5. Review Exercises.....	17



## 1. INTRODUCTION

Under the Emergency Planning and Community Right-to-Know Act (EPCRA) Toxics Release Inventory (TRI) program, certain facilities are required to submit annual reports on the amounts of toxic chemicals they release into the environment, either routinely or as a result of accidents. The applicability of the TRI program is discussed in the module entitled Toxics Release Inventory: Reporting Requirements. Just as crucial to understanding EPCRA §313 reporting is a comprehension of the exemptions from TRI reporting criteria. This module covers specific exemptions from TRI reporting and explains why certain uses, amounts, and forms of listed toxic chemicals are excluded from consideration toward threshold determination and release reporting.

Although one of the goals of Title III is to compile toxic chemical release data which can then be disseminated to the public, EPA recognizes that certain uses of listed toxic chemicals do not warrant reporting. In some cases, the chemical in question is unlikely to be released in normal processes, or is present in amounts too small to warrant reporting. Other scenarios involving listed toxic chemicals are exempted because they are covered under other laws.

When you have completed this module you will be able to explain the purpose and scope of EPCRA §313 exemptions from reporting requirements. Specifically, you will be able to:

- List the reporting exemptions under EPCRA §313
- Explain why each exemption is granted
- Discuss the requirements which must be met to obtain each exemption
- Understand how exemptions apply to covered federal facilities

Use this list of objectives to check your knowledge of this topic after you complete the training session.





## 2. REGULATORY SUMMARY

In order to understand the reporting of releases of toxic chemicals under EPCRA §313 (40 CFR Part 372), it is essential to grasp when reporting is not required. EPA grants exemptions from reporting in certain cases to owners and operators of facilities which otherwise meet each of the EPCRA §313 reporting requirements. Quantities of toxic chemicals exempt from EPCRA §313 reporting requirements are not included in threshold or release calculations. These exemptions from TRI reporting are codified at 40 CFR §372.38.

EPA provides exemptions for a variety of reasons. Among these are the desire to reduce the burden of regulatory compliance, to avoid regulation of activities already subject to other environmental standards, and to delineate those activities which are not intended to fall under the scope of the law. To this end, EPA has granted exemptions from EPCRA §313 reporting requirements for toxic chemicals present in de minimis quantities, contained in articles, used in certain manners, or intended for laboratory or research purposes. The Agency also exempts certain owners and operators of leased property from EPCRA §313 reporting requirements. Additionally, beginning with reporting year 1998, EPA has provided two new exemptions specific to mining facilities. Each of these exemptions is discussed in the following pages.

This module summarizes the regulations that govern exemptions from TRI reporting requirements under EPCRA §313. In particular, it focuses on EPA's interpretation of the exemptions and provides examples of their application. It also examines how exemptions are used at federal facilities, which are held to a slightly different standard than their private counterparts.

### 2.1 DE MINIMIS

The de minimis exemption found at 40 CFR §372.38(a) reduces the burden on manufacturing facilities that process or otherwise use only trace amounts of listed toxic chemicals. While the exemption generally applies to the processing or otherwise use of toxic chemicals, there is one instance when it may be claimed for the manufacture of a toxic chemical. These situations are discussed separately below.

De minimis is a Latin term which means small or trifling; the regulatory language specifically exempts de minimis concentrations of a toxic chemical in a mixture that is processed or otherwise used. A pure form of a chemical will not qualify for the de minimis exemption because it is not a mixture. While the legal definition of de minimis does not denote a specific percentage, the Agency has set two levels below which the exemption will apply. If a non-carcinogenic 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 that is processed or otherwise used should not be factored into threshold determinations or release reporting, or be subject to supplier notification. De minimis amounts of listed toxic chemicals in mixtures are exempted from EPCRA §313 consideration.

## PROCESS AND OTHERWISE USE

The de minimis exemption is among the more complex of the EPCRA regulatory exemptions. When a facility is processing or otherwise using a toxic chemical in a mixture, the de minimis percentage of the chemical in the mixture works as an imaginary barrier. As long as the amount of a toxic chemical in a mixture that is processed or otherwise used remains under the de minimis "line," it is exempt. Once the line is crossed, the chemical is reportable. Threshold and release calculations begin at the point where the chemical exceeds de minimis. The exemption will apply as long as the facility which receives the mixture containing de minimis amounts of a toxic chemical never goes above the de minimis limit.

For example, an ink manufacturer produces a product which contains toluene, a listed toxic chemical. The facility begins its ink production process with a mixture comprised of 0.8% toluene. During the heating process used to produce the ink, water contained in the mixture evaporates, causing the relative percentage of toluene to rise to 2.5%. Because the mixture now contains a toxic chemical in an amount above the de minimis level, the facility must apply the amount of toluene toward threshold and release determinations from the point in the process at which it exceeded the de minimis level.

Conversely, if the facility uses a heat-free method to produce the ink, and none of the water in the mixture evaporates during the process, the toluene remains below the de minimis level throughout the procedure and need not be applied toward TRI reporting. Finally, if the process used causes the percentage of toluene in the mixture to fluctuate, and it rises above the de minimis level for a time but drops below the level as the process winds down, the facility operator must consider the chemical toward threshold determinations from the point at which it first exceeded the de minimis limit. Once the imaginary de minimis line is crossed, there is no going back: the exemption does not apply. Furthermore, a chemical which is present over de minimis amounts when initially brought on-site cannot qualify for the exemption even if it subsequently falls under the de minimis limit.

## MANUFACTURE

While the imaginary line method works for process and otherwise use scenarios, the de minimis exemption may also be applicable to manufacturers of listed toxic chemicals, but only in one specific situation. If a toxic chemical is manufactured at a facility, it cannot qualify for the de minimis exemption unless it is manufactured as

an impurity which is present below de minimis levels and not separated from the final product. If the chemical is separated from the final product, thereby classifying the chemical as a byproduct, it cannot qualify for the exemption because it is no longer present below de minimis levels; indeed, it may no longer be in a mixture at all.

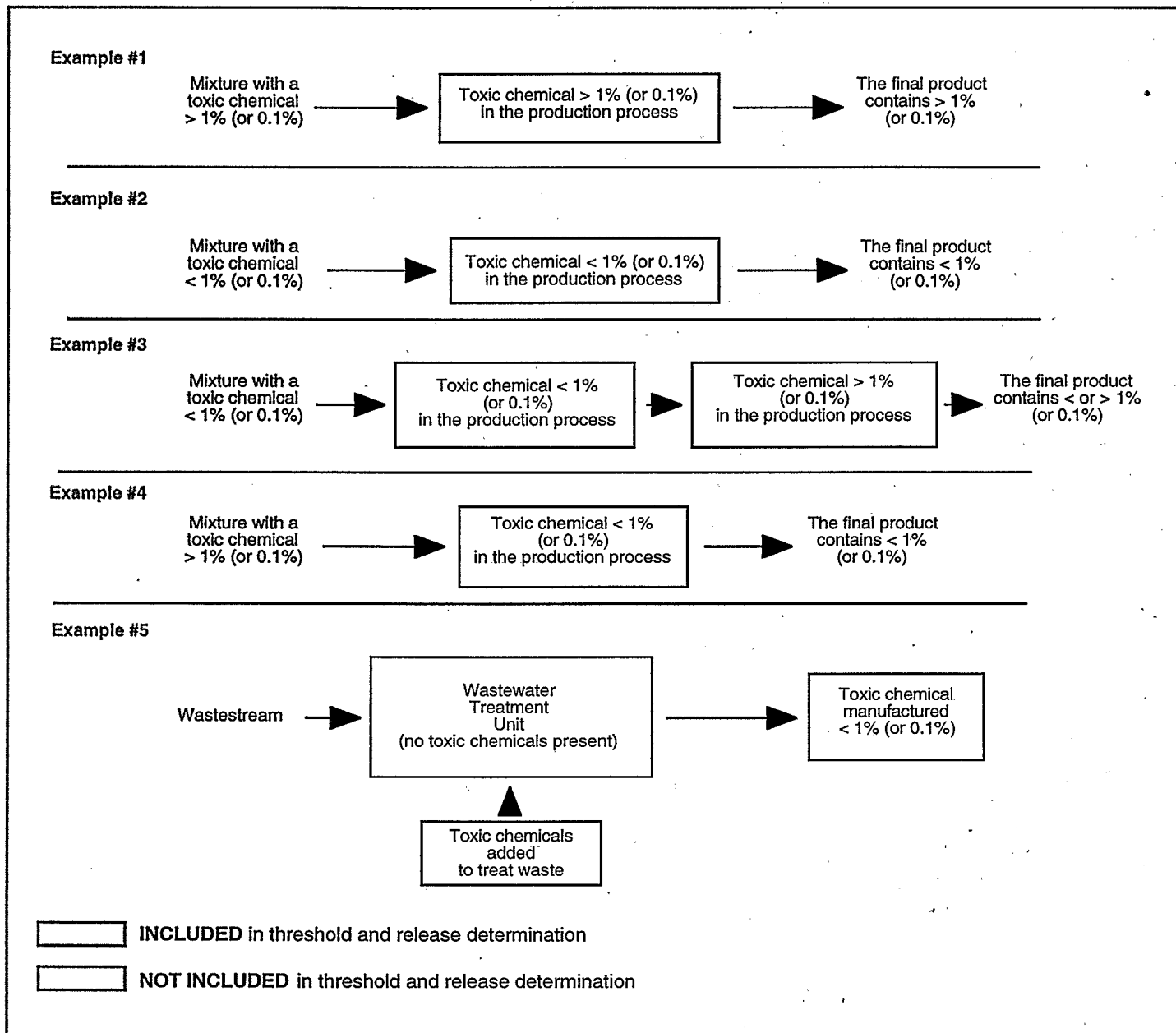
For example, a facility may react two chemicals together to produce a product. As a result of the reaction, the non-carcinogenic toxic chemical hydrogen cyanide is created as an impurity. If the newly manufactured chemical hydrogen cyanide is present in the product below the de minimis level, it is exempt from EPCRA §313 reporting requirements unless it is separated from the product as a by-product. No other scenarios involving the manufacture of toxic chemicals, other than coincidental manufacture of an impurity, qualify for the exemption.

Often, trace amounts of listed chemicals remain in wastestreams generated from manufacturing processes. A chemical's presence in the waste signals that the toxic chemical is separated from the final product. As such, it cannot qualify for the de minimis exemption. This is also the case when low levels of the chemical are manufactured as a byproduct in a wastestream as a result of treatment of the wastestream. However, if the chemical is present below de minimis levels in the process stream and wastestream, facilities do not have to count the amount of the toxic chemical in wastestream. The exemption may even apply if the listed toxic chemical is concentrated above the de minimis level in the wastestream during that processing activity.

For example, nitric acid, an EPCRA §313 toxic chemical, when added to a wastestream as a neutralizing agent, often generates monovalent nitrate compounds (e.g., sodium nitrate and potassium nitrate). These monovalent nitrate compounds are also reportable under EPCRA §313 as members of the water dissociable nitrate compounds category. These compounds must be reported if coincidentally manufactured in excess of 25,000 pounds during the reporting year, regardless of their concentration in the wastestream. The de minimis exemption does not apply.

The major concepts of the de minimis exemption are summarized in Figure 1.

**Figure 1**  
**THE APPLICATION OF THE DE MINIMIS EXEMPTION TO THRESHOLD AND**  
**RELEASE DETERMINATION**



## 2.2 ARTICLE

The regulations provide an exemption for manufactured items, which are generally referred to as articles (40 CFR §372.38(b)). For the purposes of EPCRA §313, EPA defines an article as a manufactured item that meets all of the following criteria:

- It is formed to a specific shape or design during manufacture
- It has end use functions dependent in whole or in part on its shape or design during end use and
- It does not release greater than 0.5 pounds per year of a toxic chemical under normal conditions of processing or use of that item at the facility.

If a toxic chemical is present in a manufactured item meeting the definition of an article, a regulated facility is not required to consider the quantity of the toxic chemical present in such article for the purposes of threshold determination and release reporting. This exemption applies as long as the manufactured item retains its article status while at the facility; that is, it continues to meet all three criteria mentioned above.

If the shape of an article changed significantly (e.g., thickness, diameter) in a process, the article exemption is negated. For example, a facility extrudes a thick piece of metal wire into a thinner wire as part of a process. No trace of the initial thickness of the wire remains, therefore, the article exemption does not apply. If part of the article retains its initial thickness or diameter after processing or otherwise use, it is still considered an article provided there are no releases of a toxic chemical greater than 0.5 pounds during the reporting year. For example, when threading a screw, if the head of the screw retains the initial diameter of the original metal piece, the screw can qualify for the article exemption even though a portion of the screw does not maintain its initial thickness and diameter.

Also, if a manufactured item releases a toxic chemical under normal conditions of processing or use at the facility, the article exemption is negated. For example, if a lead ingot is heated during a process and a release of a toxic chemical occurs, the piece of metal is not considered an article. The definition of "release," however, is not absolute. If less than 0.5 pounds of the toxic chemical is released from like items during the calendar year, the product would retain the article exemption (a release of 0.5 pounds or less is rounded to zero on the Form R, therefore indicating no release). The half-pound limit does not apply to each individual article, but to the sum of all amounts of the toxic chemical released during processing or otherwise use of all like items. For example, a facility cuts copper tubing to length releasing copper dust. If the total release of copper from the processing or otherwise use of copper pipes or similar articles is less than 0.5 pounds, then the copper pipe remains exempt as an article. Additionally, the Agency does not consider toxic chemicals that are 100 percent recycled to be released. Often, articles are cut or stamped using processes that generate filings or shavings. If the listed toxic chemical released

exceeds a half pound and is completely recycled/reused, on site or off site, the item may still retain its article status. Remember, however, if more than 0.5 pounds of a toxic chemical contained in filings or shavings is released from any like item during the year, the article exemption would not apply to any like item.

If the only release from the processing of an article is the disposal of solid scrap which is recognizable as having the same form as the article, then the processed item retains the article exemption. For example, a covered facility fragments a piece of copper tubing without causing any releases, and discards the scrap piece of tubing. If this scrap piece is still recognizable as copper tubing, the disposal would not be considered a release and it would retain its article status.

## 2.3 USE OF TOXIC CHEMICAL

The regulations at 40 CFR 372.38(c) provide exemptions based on policy decisions that allow certain uses of toxic chemicals without triggering regulatory requirements. A facility would not need to consider the quantity of toxic chemicals used in the following manners into either threshold determination or release reporting.

### STRUCTURAL COMPONENT

The structural component exemption addresses toxic chemicals that are used as structural components at covered facilities. There are two criteria which must be met in order to qualify for this exemption: the toxic chemical must be incorporated into the facility's structure, and the intended use of the material containing the toxic chemical must not result in active degradation and thus cause an anticipated release. Common examples of toxic chemicals incorporated into structural components at a facility are paint applied to buildings, or metals incorporated into a facility's piping network (process pipes not included). Process equipment is not considered part of the structure of the facility; therefore, the structural component exemption does not apply if, for example, an industrial furnace is being painted. The toxic chemicals in the paint must be counted toward reporting thresholds.

The second criterion concerns the intended use of the chemicals. Components that are expected to undergo active degradation are not exempted from TRI reporting, even when they form a part of the facility's structure. For example, while toxic chemicals in metal used to reinforce a facility's pipelines are exempt, those contained in metal parts such as grinding wheels or metal working tools, which are intended to wear down and be replaced as a result of their function, are not exempt from TRI reporting. This is because the latter components undergo active degradation through normal use, releasing toxic chemicals in the process. Although pipes also erode, that process is considered natural degradation and thus does not negate the exemption.

## ROUTINE JANITORIAL MAINTENANCE

Another use exemption concerns toxic chemicals present in products intended for routine janitorial or facility grounds maintenance. The exemption addresses janitorial or other custodial or plant grounds maintenance activities using substances such as cleaning supplies, fertilizers, and pesticides similar in type or concentration to consumer products. In order to qualify for the routine maintenance exemption, the toxic chemicals must not be used in a manner which contributes to a manufacturing process. Fertilizer is a common example of a material which may or may not be exempt depending on its use. A facility may use fertilizer to treat land for farming; this is not an exempt activity because the toxic chemicals in the fertilizer are otherwise used in the manufacturing process. The same fertilizer, however, may also be used to maintain the facility's lawn. This activity, if the fertilizer is of similar type or concentration to consumer products, is considered routine maintenance, and the facility should not consider toxic chemicals present in the fertilizer used on the lawn toward threshold or release determinations.

## PERSONAL USE

Personal use by employees or other persons at a facility of foods, drugs, cosmetics, or other personal items containing toxic chemicals are not included toward TRI reporting. The personal use exemption is an example of the Agency's desire to exclude chemicals which are not integral to the manufacturing operations of the facility. Items that are used by employees for personal use do not fall within the realm of such operations.

While personal use includes items which are most often personal in nature, such as cosmetics, the exemption also extends to facility operations which are intended to provide services for employees. Common examples include stores, cafeterias, or infirmaries located on-site. Supplies used to support such operations are exempt from TRI reporting requirements. The personal use exemption also applies to chemicals uses such as the addition of chlorine to drinking water for employee consumption and to swimming pools intended for employee recreation.

## MOTOR VEHICLE

The use of products containing toxic chemicals are exempt from the TRI reporting requirements if the products are used for the purpose of maintaining motor vehicles operated by covered facilities. Toxic chemicals generally found in motor vehicles include constituents of gasoline such as benzene, sulfuric acid used in batteries which power motor vehicles, and ethylene glycol found in anti-freeze. The motor vehicle exemption is broad, covering any motorized vehicle, licensed or not. The term includes forklifts, tow motors, automobiles, and other types of vehicles. This exemption does not include motor vehicles manufactured at the facility. An automobile manufacturer typically adds products containing toxic chemicals to

automobiles, which are intended for distribution in commerce. This activity is considered processing and, as such, the toxic chemicals must be included in threshold determinations and release reporting.

## **TOXIC CHEMICALS DRAWN FROM THE ENVIRONMENT**

Often facilities use environmental media such as water or compressed air to support manufacturing processes. Use of toxic chemicals present in process water and non-contact cooling water as drawn from the environment or from municipal sources, or toxic chemicals present in air used either as compressed air or as part of combustion is exempt from TRI reporting requirements. However, if a toxic chemical is created as a result of combustion, it has been coincidentally manufactured and is not exempt from TRI reporting requirements.

This exemption does apply to toxic chemicals that are added to a process by the facility. For example, many facilities use "hard" water as a coolant in processing operations. Hard water contains trace amounts of metals that may be toxic chemicals. If a facility's water contains nickel when it is drawn from a well, and the facility adds nickel to the water, the facility need only consider the amount of nickel added on site toward threshold and release calculations. Any toxic chemicals which are removed from the environmental media and then distributed in commerce are considered processed and must be applied toward that threshold.

## **2.4 LABORATORY ACTIVITIES**

If a laboratory at a covered facility manufactures, processes, or otherwise uses a toxic chemical under the direct supervision of a technically qualified individual, the facility is not required to factor the amount of the toxic chemical used at the laboratory into threshold determination or release reporting. EPA granted the laboratory exemption in an effort to reduce the regulatory burden on facilities where toxic chemicals are used in laboratories which perform auxiliary functions for manufacturing or processing activities. This exemption does not wholly exclude a laboratory from reporting, but applies to activities occurring inside a laboratory at a facility. The Agency has interpreted this exemption to include product testing, quality control, and research and development activities conducted at laboratories, but not specialty chemical production.

In order to qualify for this exemption, the regulations at 40 CFR §372.38(d) specify that the toxic chemical must both be used at a laboratory and that this use must take place under the direct supervision of a technically qualified individual. The Agency has interpreted the exemption to cover activities that necessarily occur outside of the actual laboratory, if such use is necessary to support product testing. For example, the use of jet engines on an open body of water meets the first requirement if the activity is designed to test the integrity of the engines.



Laboratory activities are not exempt unless they are conducted under the supervision of a technically qualified individual. The term is defined in regulations pursuant to the Toxic Substances Control Act (40 CFR §720.3(ee)). This reference defines technically qualified individual as a person who, because of education, training, or experience, or a combination of these factors, is capable of understanding and minimizing risks associated with the substance in question, and is responsible for safe procurement, storage, use, or disposal within the scope of research.

There are cases when laboratory activities are reportable under EPCRA §313. The laboratory exemption does not apply to specialty chemical production, toxic chemical manufacture, process, or use in pilot plant scale operations, or activities conducted outside the laboratory.

## **2.5 CERTAIN OWNERS AND OPERATORS OF LEASED PROPERTY**

### **CERTAIN OWNERS OF LEASED PROPERTY**

The owner of a regulated facility is not liable for §313 reporting if the owner's only interest in the facility is the ownership of the real estate upon which the facility is located. For example, a bank that holds the mortgage on a manufacturing facility, and has no interest in the facility other than as real estate, would be exempt from EPCRA §313 reporting liability.

### **CERTAIN OPERATORS OF ESTABLISHMENTS ON LEASED PROPERTY**

If two or more persons, who do not have any common corporate or business interests, operate separate establishments within a single facility, each person may treat the establishments he operates as an individual facility, and may make threshold determination and release calculations based on the chemicals and activities at that facility. For the purpose of this exemption, "common corporate or business interest" includes ownership of a controlling interest in one person by the other, or ownership of a controlling interest in both persons by a third person.

## **2.6 COAL EXTRACTION AND METAL MINING OVERBURDEN**

### **COAL EXTRACTION ACTIVITIES**

If a toxic chemical is manufactured, processed, or otherwise used in extraction by facilities in SIC code 12, a person is not required to consider that quantity of the toxic chemical when determining whether an applicable threshold has been met, or when determining the amount of release to be reported.

## METAL MINING OVERBURDEN

If a toxic chemical that is a constituent of overburden is processed or otherwise used by facilities in SIC code 10, that quantity of the toxic chemical may be excluded when determining whether an applicable threshold has been met, or when determining the amount of releases to be reported.

### 3. FEDERAL FACILITIES

On August 3, 1993, President Clinton signed Executive Order 12856, requiring all federal agencies to comply with EPCRA. One of the most complicated areas of compliance is with TRI reporting. EPA, by regulation, has exempted certain uses of toxic chemicals by facilities in SIC codes 20-39 from the EPCRA §313 threshold determinations and reporting. The exemptions were created to provide reporting burden relief by exempting uses that were expected to be small or ancillary at facilities in the covered SIC codes. Section 3-304(b) of the Executive Order applies these regulatory exemptions to the federal agencies. Although the exemptions were not designed with federal facilities in mind, federal facilities may apply them to their activities involving toxic chemicals. In response to the leadership challenge put forth by the Executive Order, some federal agencies have waived portions of these exemptions for their facilities.

In general, these exemptions were included as a further burden reducing measure for the manufacturing facility. The use exemptions relate to activities that, in the manufacturing sector, do not generally occur at a large scale or that are ancillary to their operations. Federal facilities may apply these exemptions to their operations. However, EPA recommends that federal facilities consider the scale of the activity and take the leadership option of including large-scale activities (e.g., motor vehicle use) that would otherwise be exempt.



#### 4. MODULE SUMMARY

EPCRA §313 includes specific exemptions from TRI reporting for certain uses, amounts, and forms of listed toxic chemicals. The exemptions include toxic chemicals present in de minimis quantities, contained in articles, used in certain manners (i.e., structural components, janitorial maintenance, personal use, motor vehicle maintenance, and drawn from the environment), or intended for laboratory or research purposes. Additional exemptions exist for certain owners and operators of leased property and for specific activities at mining facilities. Toxic chemicals and activities excluded from TRI reporting under one of the exemptions need not be included in threshold determinations or release reporting. Federal facilities, now reporting under TRI as a result of Executive Order 12856, may also claim the EPCRA §313 exemptions. These federal facilities, however, are encouraged to examine the scope and scale of their activities before claiming any of the TRI reporting exemptions.



## 5. REVIEW EXERCISES

The exercises in this section are designed to help you check your knowledge of the material in this module. Use any reference materials you need to answer the questions. Provide complete citations and write answers in paragraph form.

### EXERCISE 1

A facility operator is preparing to upgrade her deteriorating factory. As part of the facility facelift, a new coat of paint will be applied to the exterior of the building and all the machinery inside will undergo extensive relubrication. In addition, any grinding wheels which have worn down will be replaced. Should the operator apply the toxic chemicals found in the paint, lubricating oil, and the grinding wheels toward EPCRA §313 threshold determinations?

### EXERCISE 2

A metal plating facility runs an operation which forms sheets of copper metal into boxes which are then sold to a distributor for direct sale to the public. Each year, some 15,000 pounds of sheet metal is processed into the boxes. At another part of the facility, workers process 23,000 pounds of copper in plating operations. What amount of copper must the facility consider toward EPCRA §313 thresholds? What factors must the facility operator take into consideration?

### EXERCISE 3

A manufacturing facility located in Miami, Florida, uses a refrigerant containing listed toxic chemicals to cool a building which houses employee offices. Another building at the facility uses an identical refrigeration system to regulate the temperature of sensitive electronic equipment. Should the facility's regulatory specialist consider the toxic chemicals in the refrigerant toward EPCRA §313 reporting?

### EXERCISE 4

A manufacturing facility produces jet engines. As part of the process, the facility maintains a large pond to test the buoyancy of the engines. This procedure involves the annual use of 100,000 pounds of benzene. Is this an exempt activity under EPCRA §313?



## EXERCISE 5

A chemical manufacturer often receives bulk shipments of pre-mixed chemicals which it then transfers to small packages for distribution in commerce. One such mixture contains 25% acetone, 25% amatine, 0.5% diazomethane, 0.5% acetamide, and water. Over the course of the year the facility processes 5 million pounds of the mixture. Explain which, if any, of the components in the mixture are reportable under EPCRA §313.

