

CHAPTER 2: APPLICABILITY OF PROGRAM LEVELS

2.1 WHAT ARE PROGRAM LEVELS?

Once you have determined that you have one or more processes subject to this rule (see Chapter 1), you need to identify what actions you must take to comply. The rule defines three Program levels based on processes' relative potential for public impacts and the level of effort needed to prevent accidents. For each Program level, the rule defines requirements that reflect the level of risk and effort associated with the processes at that level. The Program levels are as follows:

Program 1: Processes which would not affect the public in the case of a worst-case release (in the language of Part 68, processes “with no public receptors within the distance to an endpoint from a worst-case release”) and with no accidents with specific offsite consequences within the past five years are eligible for Program 1, which imposes limited hazard assessment requirements and minimal prevention and emergency response requirements.

Program 2: Processes not eligible for Program 1 or subject to Program 3 are placed in Program 2, which imposes streamlined prevention program requirements, as well as additional hazard assessment, management, and emergency response requirements.

Program 3: Processes not eligible for Program 1 and either subject to OSHA's PSM standard under federal or state OSHA programs or classified in one of ten specified North American Industrial Classification System (NAICS) codes are placed in Program 3, which imposes OSHA's PSM standard as the prevention program as well as additional hazard assessment, management, and emergency response requirements.

If you assign a process to Program 2 or 3 when it might qualify for Program 1, the implementing agency may enforce all the requirements of the higher program levels. If, however, you are already in compliance with the prevention elements of Program 2 or Program 3, you may want to assign it to Program 2 or 3 to inform the community of your prevention efforts.

See Exhibit 2-1 for a diagram of the decision rules on determining Program level.

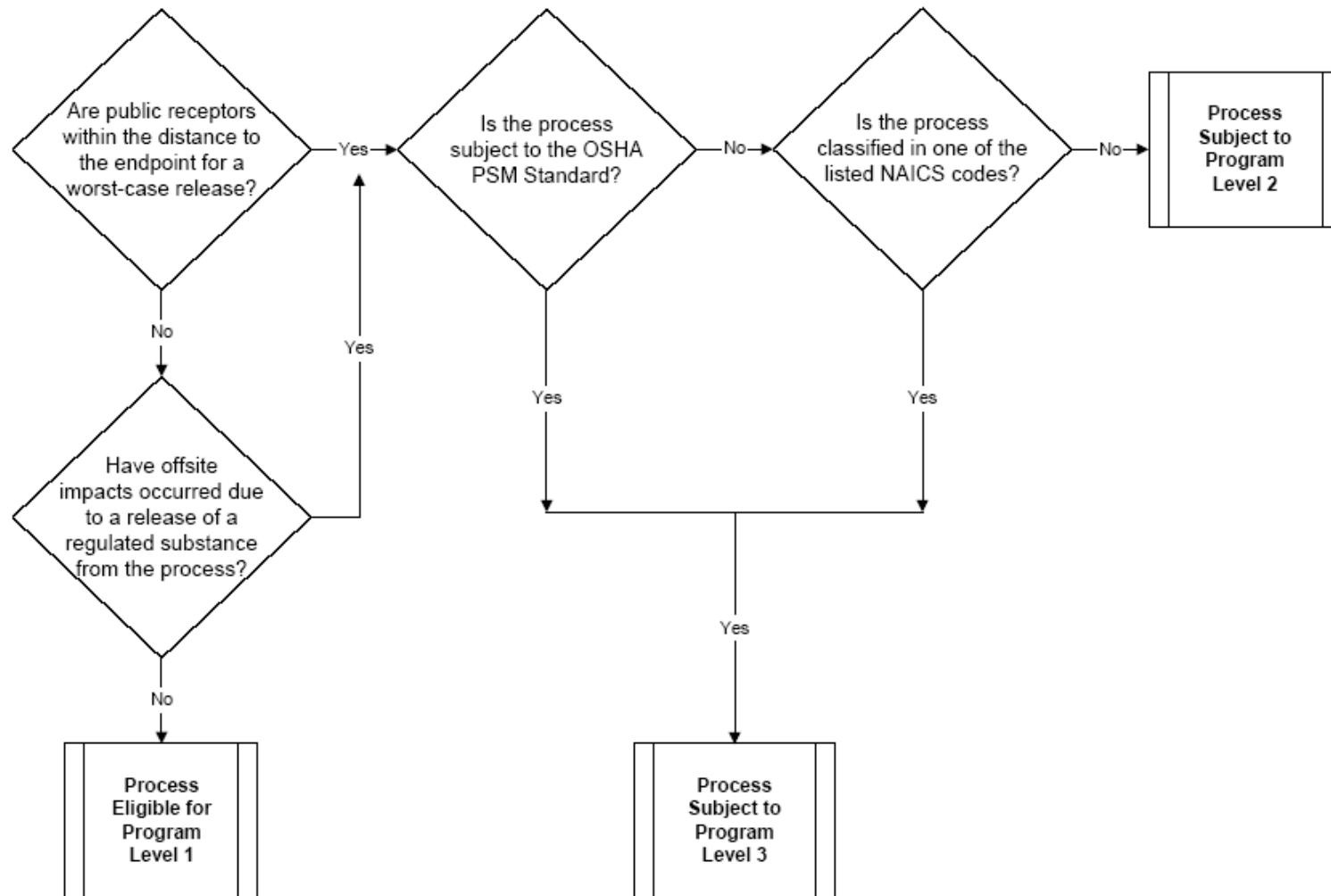
KEY POINTS TO REMEMBER

In determining program level(s) for your process(es), keep in mind the following:

- (1) **Each process is assigned to a program level**, which indicates the risk management measures necessary to comply with this regulation for that process, not the facility as a whole. The eligibility of one process for a program level does not influence the eligibility of other covered processes for other program levels.

EXHIBIT 2-1

EVALUATE PROGRAM LEVELS FOR COVERED PROCESS



- (2) **Any process that meets the criteria for Program 1 can be assigned to Program 1**, even if it is subject to OSHA PSM or is in one of the NAICS codes listed for Program 3.
- (3) **Program 2 is the default program level.** There are no "standard criteria" for Program 2. Any process that does not meet the applicability criteria for either Programs 1 or 3 is subject to the requirements for Program 2.
- (4) **Only one Program level can apply to a process.** If a process consists of multiple production or operating units or storage vessels, the highest Program level that applies to any segment of the process applies to all parts.

Q & A

PROCESS AND PROGRAM LEVEL

Q. My process includes a series of interconnected units, as well as several storage vessels that are co-located. Several sections of the process could qualify for Program 1. Can I divide my process into sections for the purpose of assigning Program levels?

A. No, you cannot subdivide a process for this purpose. The highest Program level that applies to any section of the process is the Program level for the whole process. If the entire process is not eligible for Program 1, then the entire process must be assigned to Program 2 or Program 3.

2.2 PROGRAM 1

WHAT ARE THE ELIGIBILITY REQUIREMENTS?

Your process is eligible for Program 1 if:

- (1) There are no "public receptors" within a "distance to an endpoint from a worst-case release" (see below explanation of these key terms);
- (2) The process has had no release of a regulated substance in the past five years where exposure to the substance, its reaction products, overpressures generated by explosion involving the substance, or radiant heat from a fire involving the substance resulted in one or more offsite deaths, injuries, or response or restoration activities for exposure of an environmental receptor; and
- (3) You have coordinated your emergency response activities with the local responders. (This requirement applies to any covered process, regardless of program level.)

WHAT IS A PUBLIC RECEPTOR?

The rule (§ 68.3) defines **public** as "any person except an employee or contractor of the stationary source." Consequently, employees of other facilities that may share your site are considered members of the public even if they share the same physical location. Being "the public," however, is not the same as being a public receptor.

Public receptors include "offsite residences, institutions (e.g., schools and hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release." **Offsite** means areas beyond your property boundary and "areas within the property boundary to which the public has routine and unrestricted access during or outside business hours."

The first step in identifying public receptors is determining what is "offsite." For most facilities, that determination will be straightforward. If you restrict access to all of your property all of the time, "offsite" is anything beyond your property boundaries. Ways of restricting access include fully fencing the property, placing security guards at a reception area or using ID badges to permit entry.

If you do not restrict access to a section of your property and the public has routine and unrestricted access to it during or after business hours, that section would be "offsite." For example, if your operations are fenced but the public has unrestricted access to your parking lot during or after business hours, the parking lot is "offsite." In the case of facilities such as hospitals, schools, and hotels that shelter members of the public as part of their function or business, the parts of the facility that are used to shelter the public would be "offsite."

Not all areas offsite are potential public receptors. The point of identifying public receptors is to locate those places where there are likely to be, at least some of the time, members of the public whose health could be harmed by short-term exposure to an accidental release at your site. The basic test for identifying a public receptor is thus whether an area is a place where it is reasonable to expect that members of the public will routinely gather at least some of the time.

The definition of "public receptor" itself specifies the types of areas where members of the public may routinely gather at least some of the time: residences, institutions such as hospitals and schools, buildings in general, parks and recreational areas. There should be little difficulty in identifying residences, institutions and businesses as such, and virtually any residence, institution and business will qualify as a public receptor, even when the property is used only seasonally (as in a vacation home). Notably, a residence includes its yard, if any, and an institution or business includes its grounds to the extent that employees or other members of the public are likely to routinely gather there at least some of the time for business or other purposes (see discussion of recreational areas below). The only circumstances that would justify not considering such a property a public receptor would be where your facility owns or controls the property and restricts access to it, or no member of the public inhabits

or occupies it at any time. Where a hospital, school, hotel or other entity that provides public shelter is itself subject to the part 68 rule, it will be its own public receptor except for those areas where members of the public are not allowed to go at any time.

Buildings other than residences, institutions or businesses are also highly likely to qualify as public receptors since the function of most buildings is at least in part to shelter people. Accordingly, toll booth plazas, transit stations, and airport terminals would qualify as public receptors. For a building not to qualify as a public receptor, one of the circumstances mentioned above would have to apply.

Every designated park or recreational area, or at least some portion thereof, is apt to be a public gathering place by virtue of facilities made available to the public (e.g., visitors' center, playground, golf course, camping or picnic area, marina or ball field) or attributes that members of the public routinely seek to use (e.g., beach). It does not matter whether use of such facilities is seasonal; routine use for at least part of the year would qualify the area as a public receptor.

At the same time, some portion of a designated park or recreational area may not be a public receptor. For instance, a large state or national park may include relatively inaccessible tracts of land that do not contain public facilities or receive routine use. Occasional hiking, camping or hunting in such areas would not qualify the areas as public receptors.

An area need not be designated a recreational area to be one in fact. If an area is routinely used for recreational purposes, even if only seasonally, it is a recreational area for purposes of the part 68 rule. For example, a marina may not bill itself as a "recreational area," but if a marina houses recreational boats, it qualifies as a public receptor. Further, if your facility or a neighboring property owner allows the public to make routine recreational use of some portion of land (e.g., a ball field or fishing pond), that portion of land would qualify as a public receptor.

Roads and parking lots are not included as such in the definition of "public receptor." Neither are places where people typically gather; instead they are used to travel from one place to another or to park a vehicle while attending an activity elsewhere. However, if a parking lot is predictably and routinely used as a place of business (e.g., a farmer's market) or for a recreational purpose (e.g., a county fair), it would qualify as a public receptor.

In general, farm land would not be considered a public receptor. However, if farm land, or a portion thereof, is predictably and routinely occupied by farm workers or other members of public, even if only on a seasonal basis, that portion of the land would be a public receptor.

If you are in doubt about whether to consider certain areas around your facility as public receptors, you should consult with the relevant local officials and land owners and your implementing agency for guidance.

Qs & As PUBLIC RECEPTORS

Q. My processes are fenced, but my offices and parking lot for customers are not restricted. What is considered offsite? What is considered a public receptor?

A. The unrestricted areas would be considered offsite. However, they would not be public receptors because you are responsible for the safety of those who work in or visit your offices and because parking lots are not generally public receptors.

Q. What is considered a recreational area?

A. Recreational areas would include land that is designed, constructed, designated, or used for recreational activities. Examples are national, state, county, or city parks, other outdoor recreational areas such as golf courses or swimming pools and bodies of waters (oceans, lakes, rivers, and streams) when used by the public for fishing, swimming, or boating. Public and private areas that are predictably used for hunting, fishing, bird watching, bike riding, hiking, or camping or other recreational use also would be considered recreational areas. EPA encourages you to consult with land owners, local officials, and the community to reach an agreement on an area's status; your local emergency planning committee (LEPC) can help you with these consultations. EPA recognizes that some judgment is involved in determining whether an area should be considered a recreational area.

Q. Does public receptor cover only buildings on a property or the entire property? If the owner of the land next to my site restricts access to the land, is it still a public receptor?

A. Public receptors are not limited to buildings. For example, if there are houses near your property, both the houses and their yards are considered public receptors because it is likely that residents will be present in one or the other at least some of the time, and, in fact, people are likely to be in more danger if they are outside when a release occurred. The ability of others to restrict access to an area does not change its status as a public receptor. You need to consider whether that land is generally unoccupied. If the land is undeveloped or rarely has anyone on it, it is not a public receptor. If you are not sure of the land's use of occupancy, you should talk with the landowner and the community about its status. Because it is the landowner and members of the local community who are likely to be affected by your decision, you should involve them in the decision if you have doubts.

WHAT IS A DISTANCE TO AN ENDPOINT FROM A WORST-CASE RELEASE?

In broad terms, the distance to an endpoint is the distance a toxic vapor cloud, fire, or explosion from an accidental release will travel before dissipating to the point that serious injuries from short-term exposures will no longer occur. The rule establishes "endpoints" for each regulated substance and defines the circumstances of a worst-case release scenario (e.g., release type, rate and duration, weather) (see Chapter 4 or the *Risk Management Program Guidance for Offsite Consequence Analysis* for more information). You will have to define a worst-case release (usually the loss of the total contents of your largest vessel) for each Program 1 process and determine the distance to the endpoint for that release. (EPA has developed

guidance for defining and analyzing worst-case releases; you may also conduct modeling on your own to determine the distance to the endpoint for worst-case releases.) Beyond that endpoint, the effects on people are not considered to be severe enough to merit the need for additional action under this rule.

To define the area of potential impact from the worst-case release, draw a circle on a map, using the process as the center and the distance to the endpoint as the radius. If there are public receptors within that area, your process is not eligible for Program 1.

Q & A **DETERMINING DISTANCES**

Q. Our distance to the endpoint for the worst-case release is 0.3 miles. The nearest public receptor is 0.32 miles away. What tools are available to document that the public receptor is beyond the distance to the endpoint so we can qualify for Program 1?

A. The results of any air dispersion model (from EPA's guidance documents or other models) are not precise predictions. They represent an estimate, but the actual distances to the endpoint could be closer to or farther from the point of release. If your distance to the endpoint and distance to a public receptor are so close that you cannot document, using a USGS map, that the two points are different, it would be advisable to comply with the higher Program level. The most detailed maps available from the US Geological Survey (scale of 1:24,000) are accurate enough to map the distances you cite and document that the two points (which are about 100 feet apart) differ. GPS systems may also allow you to differentiate these points.

ACCIDENT HISTORY

To be eligible for Program 1, no release of the regulated substance from the process can have resulted in one or more offsite deaths, injuries, or response or restoration activities at an environmental receptor during the five years prior to submission of your RMP. A release of the regulated substance from another process has no bearing on whether the first process is eligible for Program 1.

WHAT IS AN INJURY?

An injury is defined as "any effect on a human that results either from direct exposure to toxic concentrations; radiant heat; or overpressures from accidental releases or from the direct consequences of a vapor cloud explosion (such as flying glass, debris, and other projectiles) from an accidental release." The effect must "require medical treatment or hospitalization." This definition is taken from the OSHA regulations for keeping employee injury and illness logs and should be familiar to most employers. Medical treatment is further defined as "treatment, other than first aid, administered by a physician or registered professional personnel under standing orders from a physician." The definition of medical treatment will likely capture most instances of hospitalization. However, if someone goes to the hospital following direct exposure to a release and is kept overnight for observation (even if no specific injury or illness is found), that would qualify as hospitalization and so would be considered an injury.

WHAT IS AN ENVIRONMENTAL RECEPTOR?

The environmental receptors you need to consider are limited to natural areas such as national or state parks, forests, or monuments; officially designated wildlife sanctuaries, preserves, refuges, or areas; and Federal wilderness areas. All of these areas can be identified on local U.S. Geological Survey maps.

WHAT ARE RESTORATION AND RESPONSE ACTIVITIES?

The type of restoration and response activity conducted to address the impact of an accidental release will depend on the type of release (volatilized spill, vapor cloud, fire, or explosion), but may include such activities as:

- ◆ Collection and disposal of dead animals and contaminated plant life;
- ◆ Collection, treatment, and disposal of soil;
- ◆ Shutoff of drinking water;
- ◆ Replacement of damaged vegetation; or
- ◆ Isolation of a natural area due to contamination associated with an accidental release.

Q & A
ENVIRONMENTAL RECEPTORS

Q. Do environmental receptors include areas that are not Federal Class I areas under the CAA?

A. Yes. The list of environmental receptors in Part 68 includes areas in addition to those that qualify as Federal Class I areas under CAA section 162. Under Part 68, national parks, monuments, wilderness areas, and forests are environmental receptors regardless of size. State parks, monuments, and forests are also environmental receptors.

DOCUMENTING PROGRAM 1 ELIGIBILITY

For every Program 1 process at your facility, you must keep records documenting the eligibility of the process for Program 1. For each Program 1 process, your records should include the following:

- ◆ A description of the worst-case release scenario, which must specify the vessel or pipeline and substance selected for worst-case analysis, assumptions and parameters used, and the rationale for selection. Assumptions may include use of any administrative controls and any passive mitigation that would limit the quantity that could be released;

- ◆ Documentation of the estimated quantity of the worst-case release, release rate, and duration of release;
- ◆ The methodology used to determine distance to endpoints;
- ◆ Data used to determine that no public receptor would be affected; and
- ◆ Information on your coordination with public responders.

2.3 QUICK RULES FOR DETERMINING PROGRAM 1 ELIGIBILITY

You generally will not be able to predict with certainty that the worst-case scenario for a particular process will meet the criteria for Program 1. Processes containing certain substances, however, may be more likely than others to be eligible for Program 1, and processes containing certain other substances may be very unlikely to be eligible for Program 1 because of the toxicity and physical properties of the substances. The information presented below may be useful in identifying processes that may be eligible for Program 1.

TOXIC GASES

If you have a process containing more than a threshold quantity of any regulated toxic gas that is not liquefied by refrigeration alone (i.e., you hold it as a gas or liquefied under pressure), the distance to the endpoint estimated for a worst-case release of the toxic gas will generally be several miles. As a result, the distance to endpoint is unlikely to be less than the distance to public receptors, unless the process is very remote. In some cases, however, toxic gases in processes in enclosed areas may be eligible for Program 1.

REFRIGERATED TOXIC GASES

If you have a process containing anhydrous ammonia liquefied by refrigeration alone, and your worst-case release would take place into a diked area, the chances are good that the process may be eligible for Program 1, unless there are public receptors very close to the process. Even if you have many times the threshold quantity of ammonia, the process may still be eligible for Program 1.

If you have a process containing ethylene oxide, anhydrous hydrogen fluoride, or methyl chloride liquefied by refrigeration alone, and the release would take place into a diked area, the process may be eligible for Program 1, depending on the size of the diked area, the quantity of the regulated substance, and the location of public receptors.

The worst-case analysis for a process containing chlorine liquefied by refrigeration is unlikely to show eligibility for Program 1, unless your site is extremely remote from the public or the release would occur within an enclosure.

Qs & As ACCIDENT HISTORY

Q. What is the relationship between the accident history criteria for Program 1 and the five-year accident history? If my process is eligible for Program 1, do I still need to do a five-year accident history?

A. The five-year accident history is an information collection requirement that is designed to provide data on all serious accidents involving release of a regulated substance from a covered process.

In contrast, the Program 1 accident history criteria focus on accidents causing offsite harm of the most serious kind: death or injury of persons or significant harm to a public receptor. Onsite effects, shelterings-in-place, and evacuations that have occurred must be reported in the five-year accident history, but they are not considered in determining Program 1 eligibility. Therefore, it is possible for process to be eligible for Program 1 and still have experienced a release that must be reported in the accident history for the source.

Q. A process with more than a threshold quantity of a regulated substance had an accident with offsite consequences three years ago. After the accident, we altered the process to reduce the quantity stored on site, although the quantity still exceeds the threshold quantity. Now the worst-case release scenario indicates that there are no public receptors within the distance to an endpoint. Can this process qualify for Program 1?

A. No, the process cannot qualify for Program 1 until five years have passed since any accident with consequences that disqualify a process for Program 1.

TOXIC LIQUIDS

The distance to an endpoint for a worst-case release involving toxic liquids kept under ambient conditions may be smaller than the distance to public receptors in a number of cases. If public receptors are not found very close to the process (within ½ mile), the process may be eligible for Program 1. However, small-sized facilities are highly unlikely to meet to be eligible for Program 1 if they are in a developed area. Remotely located facilities or processes found near the center of large (acreage) sites are more likely to be eligible.

Substances that are potential candidates to be in processes that are eligible for Program 1 are noted below. Generally, processes that contain toxic liquids at elevated temperatures, including the toxic liquids listed below, would be less likely to be eligible for Program 1 than those at ambient temperature, and processes in diked areas are more likely to be eligible for Program 1 than those in undiked areas.

For processes containing toluene diisocyanate (including toluene 2,4-diisocyanate, toluene 2,6-diisocyanate, and unspecified isomers) or ethylene diamine, the worst-

case analysis of a spill of more than a threshold quantity into an undiked area under ambient conditions is likely to demonstrate eligibility for Program 1. If the area of the spill is diked, even processes containing very large quantities of these substances may be eligible for Program 1. In addition, processes containing the following toxic liquids under ambient conditions are likely to be eligible for Program 1 if a spill would take place in a diked area and public receptors are not close to the process:

- ◆ Chloroform
- ◆ Cyclohexylamine
- ◆ Hydrazine
- ◆ Isobutyronitrile
- ◆ Isopropyl chloroformate
- ◆ Oleum
- ◆ Propylene oxide
- ◆ Titanium tetrachloride
- ◆ Vinyl acetate monomer

WATER SOLUTIONS OF TOXIC SUBSTANCES

The list of regulated substances includes several common water solutions of toxic substances. Processes containing such solutions at ambient temperatures may be eligible for Program 1 (depending in some cases on the concentration of the solution), if spills would be contained in diked areas and public receptors are not located close to the process (within $\frac{1}{2}$ mile). As noted above, small-sized facilities in developed areas are highly unlikely to be eligible for Program 1; remotely located facilities or processes found near the center of large (acreage) sites are more likely to be eligible.

Processes containing the following water solutions under ambient conditions may be eligible for Program 1, assuming diked areas that would contain the spill:

- ◆ Ammonia in solution
- ◆ Formaldehyde (commercial concentrations)
- ◆ Hydrofluoric acid (concentration 50 to 70 percent)
- ◆ Nitric acid (commercial concentrations)
- ◆ Oleum

FLAMMABLE SUBSTANCES

Many processes containing regulated flammable substances are likely to be eligible for Program 1, unless there are public receptors within a very short distance. If you have a process containing up to about 20,000 pounds (twice the threshold quantity) of a regulated flammable substance (other than hydrogen), your process is likely to be eligible for Program 1 if you have no public receptors within about 400 yards (1,200 feet) of the process. If you have up to 100,000 pounds in a process (ten times the threshold quantity), the process may be eligible for Program 1 if there are no public receptors within about 700 yards (2,000 feet). In general, it would be worthwhile to conduct a worst-case analysis for any processes containing only flammables to determine Program 1 eligibility, unless you have public receptors very close to the process. Consequently, you may have to conduct more worst-case

analyses if you want to qualify processes for Program 1; for Program 2 and 3 processes, you need analyze only one worst-case release scenario to cover all flammables. For Program 1, you must be able to demonstrate, through your worst-case analysis, that every process you claim is Program 1 meets the criteria.

2.4 PROGRAM 3

Any covered process that is not eligible for Program 1 and meets one of the two criteria specified below is subject to Program 3 requirements, which include risk management measures and requirements virtually identical to the OSHA PSM Standard.

WHAT ARE THE ELIGIBILITY CRITERIA FOR PROGRAM 3?

Your process is subject to Program 3 if:

- ◆ Your process does not meet the eligibility requirements for Program 1, and
- ◆ Either
 - (a) Your process is subject to OSHA PSM (federal or state); or
 - (b) Your process is in one of ten NAICS codes specified in part 68.

WHAT IS THE OSHA PSM STANDARD?

The OSHA Process Safety Management standard (codified at 29 CFR 1910.119) is a set of procedures in thirteen management areas designed to protect worker health and safety in case of accidental releases. Similar to EPA's rule, OSHA PSM applies to a range of facilities that have more than a threshold quantity of a listed substance in a process. All processes subject to this rule and the OSHA PSM standard (federal or state) and not eligible for Program 1 are assigned to Program 3 because the Program 3 prevention program is virtually identical to the elements of the PSM standard. If you are already complying with OSHA PSM for a process, you probably will need to take few, if any, additional steps and develop little, if any, additional documentation to meet the requirements of the Program 3 prevention elements (see Chapter 8 for a discussion of differences between Program 3 prevention and OSHA PSM). EPA placed all covered OSHA PSM processes in Program 3 to eliminate the possibility of imposing overlapping, inconsistent requirements on the same process.

WHAT ARE THE TEN NAICS CODES? (§ 68.10)

Program 3 requirements are applicable to a covered process if the process is in one of ten manufacturing NAICS codes: 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311, or 32532. These NAICS codes were selected based on an analysis of accidental release data and represent activities for which a relatively high

proportion of sources reported releases. The following are the NAICS codes and the associated activity:

| <u>NAICS Code</u> | <u>Industry</u> |
|-------------------|---|
| 32211 | Pulp mills |
| 32411 | Petroleum refineries |
| 32511 | Petrochemical manufacturing |
| 325181 | Alkalies and chlorine manufacturing |
| 325188 | All other basic inorganic chemical manufacturing |
| 325192 | Cyclic crude and intermediate manufacturing |
| 325199 | All other basic organic chemical manufacturing |
| 325211 | Plastics material and resin manufacturing |
| 325311 | Nitrogenous fertilizer manufacturing |
| 32532 | Pesticide and other agricultural chemical manufacturing |

HOW DO I DEFINE A NAICS CODE FOR A PROCESS?

Unless you have only one process, you probably have not previously needed to assign a NAICS code to each of your processes. If your covered process includes several industrial activities, you will need to determine the primary NAICS code for assigning Program level based on the primary activity of the process. If the process covers multiple industrial activities, you may list several NAICS codes for the process on the registration part of the RMP. Even if a process is considered a support activity for your main production (e.g., your warehouse or wastewater treatment system), you must assign it a separate, appropriate code (e.g., 56221 for waste treatment) to determine if it is subject to Program 3.

This assignment does not affect your ability to consider such support processes as part of the same industrial group for purposes of defining your stationary source; the two decisions are separate.

NAICS CODES FOR A PROCESS VS. PRIMARY FACILITY NAICS CODE

For purposes of determining program levels, you must identify the applicable NAICS codes for each individual process. Unless you have only one process, there may not be a relationship between the covered process NAICS code(s) and your facility's primary NAICS code. The primary NAICS code for your facility may be similar to the NAICS codes that you determine for several if not all of your processes, but the primary NAICS code for the facility should not be used as a default value or to identify a NAICS code for a single process. The primary NAICS code for the facility is assigned based on the activity that contributes the largest percentage of your revenue and is the code you use when you complete Census forms.

2.5 PROGRAM 2

Program 2 is considered a default program level because any covered process that is not eligible for Program 1 or assigned to Program 3 is, by default, subject to Program 2 requirements, including a streamlined accident prevention program. One or more processes at your facility are likely to be in Program 2 if:

- ◆ You are a retailer and do not perform any chemical processing activities, such as an agricultural fertilizer retailer.
- ◆ You are a publicly owned facility in a state that does not have a delegated OSHA program.
- ◆ You use regulated acids in solution in activities that do not fall into one of the ten NAICS codes specified for Program 3.
- ◆ You store regulated liquid flammable substances in atmospheric storage tanks for use as a feedstock or for sale to retailers.

WHAT ARE THE ELIGIBILITY CRITERIA FOR PROGRAM 2?

Your process is subject to Program 2 if:

- ◆ Your process does not meet the eligibility requirements for Program 1;
- ◆ Your process is not subject to OSHA PSM (federal or state); and
- ◆ Your process is not categorized in NAICS code 32211, 32411, 32511, 325181, 325188, 325192, 325199, 325211, 325311, or 32532.

When determining what program level is appropriate for your covered process, keep in mind that if it does not meet the Program 1 criteria, if it is not covered by OSHA PSM, and it is not classified in the NAICS codes listed above, the process automatically is subject to Program 2 requirements.

Exhibit 2-2 provides a summary of the criteria for determining Program level.

| EXHIBIT 2-2 PROGRAM LEVEL CRITERIA | | |
|---|--|--|
| Program 1 | Program 2 | Program 3 |
| No accidents in the previous five years that resulted in any offsite: Death Injury Response or restoration activities at an environmental receptor | The process is not eligible for Program 1 or subject to Program 3. | Process is not eligible for Program 1. |
| No public receptors in worst-case circle. | | Process is subject to OSHA PSM. |
| Emergency response coordinated with local responders. | | Process is classified in NAICS code 32211 - Pulp Mills 32411 - Petroleum Refineries 32511 - Petrochemical Manufacturing 325181 - Alkalies and Chlorine Manufacturing 325188 - All Other Basic Inorganic Chemical Manufacturing 325192 - Cyclic Crude and Intermediate Manufacturing 325199 - All Other Basic Organic Chemical Manufacturing 325211 - Plastics Material and Resin Manufacturing 325311 - Nitrogenous Fertilizer Manufacturing 32532 - Pesticide and Other Agricultural Chemical Manufacturing |

2.6 DEALING WITH PROGRAM LEVELS

WHAT IF I HAVE MULTIPLE PROGRAM LEVELS?

If you have more than one covered process, you may be dealing with multiple program levels in your risk management program.

If your facility has processes subject to different program levels, you will need to comply with different program requirements for different processes. Nevertheless, you must submit a single RMP for all covered processes.

If you prefer, you may choose to adopt the most stringent applicable program level requirements for all covered processes. For example, if you have three covered processes, one eligible for Program 1 and two subject to Program 3, you may find it administratively easier to follow the Program 3 requirements for all three covered

processes. Remember, though, that this is only an option; we expect that most sources will comply with the set of program level requirements for which each process is eligible.

Qs & As OSHA

Q. If my state administers the OSHA program under a delegation from the federal OSHA, does that mean that my processes that are subject to OSHA PSM under the state rules are in Program 3?

A. Yes, as long as the process does not qualify for Program 1. Any process subject to PSM, under federal or state rules, is considered to be in Program 3 unless it qualifies for Program 1.

Q. I am a publicly owned facility in a state with a delegated OSHA program. Why are my processes considered to be in Program 3 when the same processes in a state where federal OSHA runs the program are in Program 2?

A. Federal OSHA cannot impose its rules on state or local governments, but when OSHA delegates its program to a state for implementation, the state imposes the rules on itself and local governments. Because these governments are complying with the identical OSHA PSM rules imposed by federal OSHA, they are subject to Program 3. In meeting their obligations under state OSHA rules, they are already substantially in compliance with the Program 3 prevention program requirements. State and local governments in non-state-plan states are not subject to any OSHA rules and must comply with Program 2.

CAN THE PROGRAM LEVEL FOR A PROCESS CHANGE?

A change in a covered process or in the surrounding community can result in a change in the program level of the process. If this occurs, you must submit an updated RMP within six months of the change that altered the program level for the covered process. If the process no longer qualifies as a covered process (e.g., as a result of a change in the quantity of the regulated substance in the process), you must update and re-submit your RMP within six months indicating that the process is no longer subject to any program level requirements. If it is your only covered process, you are no longer subject to the Part 68 regulations and will need to "deregister" your RMP (see Chapter 9 for more information). Typical examples of switching program levels include:

MOVING UP

From Program 1 to Program 2 or 3. You have a covered process subject to Program 1 requirements. A new residential development results in public receptors being located within the distance to the endpoint for a worst-case release for that process. The process thus is no longer eligible for Program 1 and must be evaluated to determine whether Program 2 or Program 3 applies. You must update and re-submit your RMP within six months of the program level change, indicating and

documenting that your process is now in compliance with the new program level requirements.

From Not Covered to Program 1, 2 or 3. You have a process that was not originally covered by part 68, but, due to a planned expansion in production, you plan to increase the amount of regulated substance in the process to a level that will exceed the threshold quantity for that substance. You must determine which program level applies and come into compliance with the rule by the time you increase the amount of regulated substance in the process to a level exceeding the threshold quantity.

From Program 2 to Program 3. You have a process that involves a regulated substance above the threshold that is not in one of the ten NAICS codes specified for Program 3 and that had not been subject to OSHA PSM. However, due to one of the following OSHA regulatory changes, the process is now subject to the OSHA PSM standard:

- ◆ An OSHA PSM exemption applicable to your process has been eliminated, or
- ◆ The regulated substance has been added to OSHA's list of highly hazardous substances.

As a result, the process becomes subject to Program 3 requirements and you must update and re-submit your RMP to EPA within six months, indicating and documenting that your process is now in compliance with the Program 3 requirements.

SWITCHING DOWN

From Program 2 or 3 to Program 1. At the time you submit your RMP, you have a covered process subject to Program 2 or 3 requirements because it experienced an accidental release of a regulated substance with offsite impacts four years ago. Subsequent process changes have made such an event unlikely (as demonstrated by the worst-case release analysis). One year after you submit your RMP, the process has not experienced an accident for five years, so it is now eligible for Program 1. If you elect to qualify the process for Program 1, you must update and re-submit your RMP within six months of the program level change, indicating and documenting that the process is now in compliance with the new program level requirements.

From Program 2 or 3 to Not Covered. You have a covered process that has been subject to Program 2 or 3 requirements, but due to a reduction in production, the amount of a regulated substance it holds no longer exceeds the threshold. Therefore, the process is no longer a covered process. You must update and re-submit your RMP within six months indicating that your process is no longer subject to any program level requirements. If this was your only covered process, you must “deregister” your RMP.

2.7 SUMMARY OF PROGRAM REQUIREMENTS

Regardless of the program levels of your processes, you must complete a five-year accident history for each process (see Chapter 3) and submit an RMP that covers all processes (see Chapter 9). Depending on the program level of each of your processes, you must comply with the additional requirements described below. Exhibit 2-3 diagrams the requirements in general and Exhibit 2-4 lists them in more detail.

PROGRAM 1

For each Program 1 process, you must conduct and document a worst-case release analysis. You must coordinate your emergency response activities with local responders and sign the Program 1 certification as part of your RMP submission.

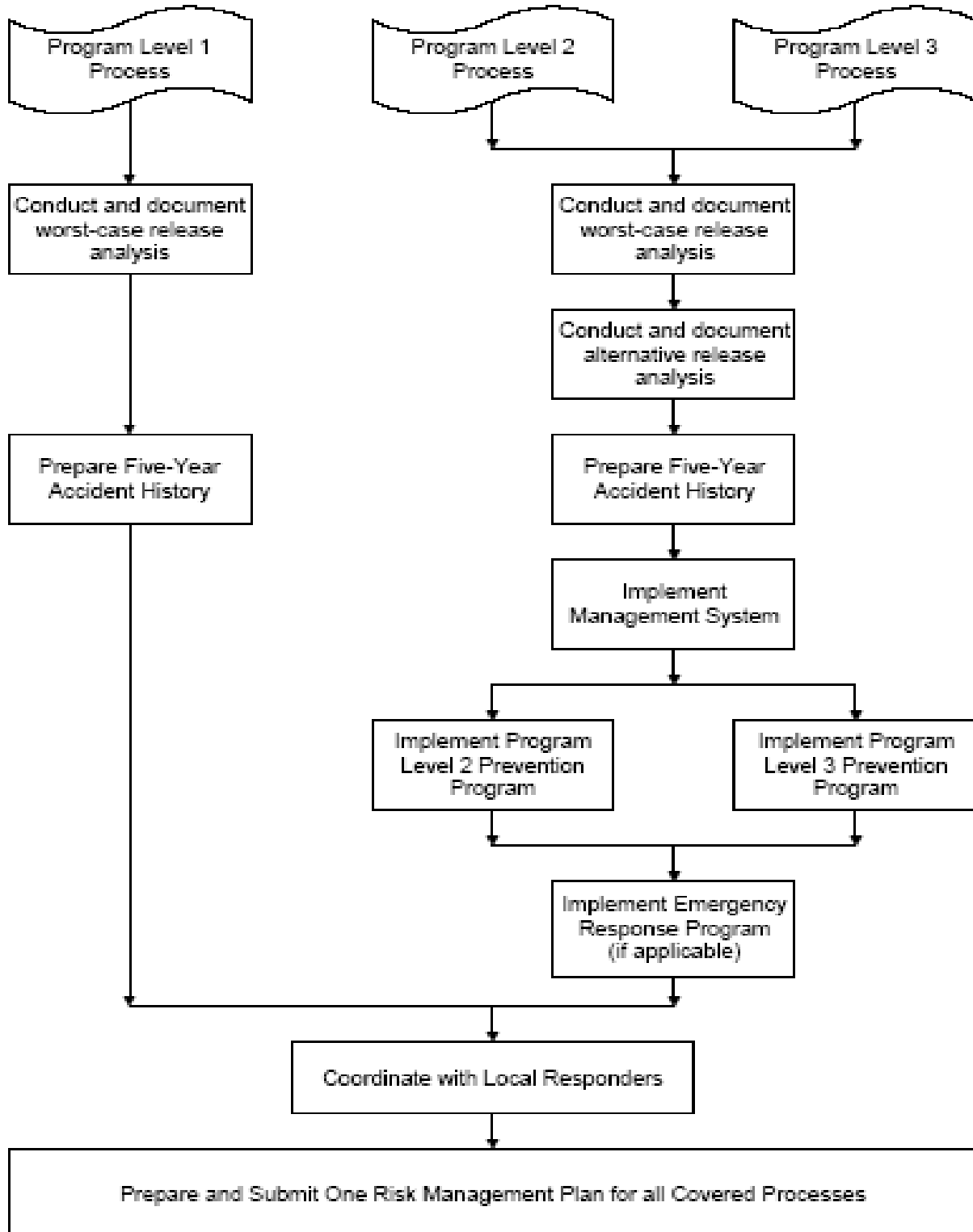
PROGRAMS 2 AND 3

For all Program 2 and 3 processes, you must conduct and document at least one worst-case release analysis to cover all toxics and one to cover all flammables. You may need to conduct additional worst-case release analyses if worst-case releases from different parts of your facility would affect different public receptors. You must also conduct one alternative release scenario analysis for each toxic and one for all flammables. See Chapter 4 or the *RMP Offsite Consequence Analysis Guidance* for specific requirements. You must coordinate your emergency response activities with local responders and, if you use your own employees to respond to releases, you must develop and implement an emergency response program. See Chapter 8 for more details.

For each Program 2 process, you must implement all of the elements of the Program 2 prevention program: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigations. See Chapter 6 for more details.

For each Program 3 process, you must implement all of the elements of the Program 3 prevention program: process safety information, process hazard analysis, standard operating procedures, training, mechanical integrity, compliance audits, incident investigations, management of change, pre-startup reviews, contractors, employee participation, and hot work permits. See Chapter 7 for more details.

EXHIBIT 2-3 DEVELOP RISK MANAGEMENT PROGRAM AND RMP



| EXHIBIT 2-4 COMPARISON OF PROGRAM REQUIREMENTS | | |
|---|---|---|
| Program 1 | Program 2 | Program 3 |
| Worst-case release analysis | Worst-case release analysis | Worst-case release analysis |
| | Alternative release analysis | Alternative release analysis |
| 5-year accident history | 5-year accident history | 5-year accident history |
| | Document management system | Document management system |
| Prevention Program | | |
| Certify no additional prevention steps needed | Safety Information | Process Safety Information |
| | Hazard Review | Process Hazard Analysis. |
| | Operating Procedures | Operating Procedures |
| | Training | Training |
| | Maintenance | Mechanical Integrity |
| | Incident Investigation | Incident Investigation |
| | Compliance Audit | Compliance Audit |
| | | Management of Change |
| | | Pre-Startup Review |
| | | Contractors |
| | | Employee Participation |
| | | Hot Work Permits |
| Emergency Response Program | | |
| Coordinate with local responders | Develop plan and program and coordinate with local responders | Develop plan and program and coordinate with local responders |
| Submit One Risk Management Plan for All Covered Processes | | |

2.8 EXAMPLE SOURCES

The six sources described in this section will be used in this document to highlight important stages in developing a risk management program.

Source A

A chemical distribution facility stores isopropylamine in 55-gallon drums inside a warehouse. The facility stores a total of 80 drums in close proximity to each other, so they are considered “co-located” and their contents are added together to determine if the applicable threshold quantity is exceeded. Since the total quantity in the co-located drums exceeds the applicable threshold quantity of 10,000 pounds, the warehouse is a covered process.

The warehouse is located 50 yards inside the facility fence line and the nearest public receptor (another industrial facility) is 100 yards from the fence line. The distance to the overpressure endpoint for a worst-case release from a single 55-gallon drum is approximately 0.05 miles or 88 yards. There is no public receptor within the distance to an endpoint from a worst-case release, and the process had no accidental releases of isopropylamine resulting in offsite impacts in the last five years. The process is eligible for Program 1.

Source B

An agricultural retailer located in a commercial area has a 200-ton tank of anhydrous ammonia and an 18,000-gallon propane tank. The retailer unloads both ammonia and propane from these bulk tanks into smaller tanks that are then transported to farms. The factory is not fenced. The facility is within 0.15 mile of residences and the business center of a small town.

The facility has one covered process: the 200-ton tank of ammonia. Because propane is a flammable fuel and the facility is a retailer, the propane is not subject to part 68. A worst-case release analysis finds that the worst-case release of ammonia will potentially impact the residences and the business center of town. The facility is not subject to OSHA PSM, nor is the ammonia storage categorized in one of the ten listed NAICS codes for Program 3. As a result, the process is subject to Program 2.

Source C

A bulk products terminal has co-located petroleum product tanks containing 10,000,000 pounds of a regulated flammable mixture in one area, and co-located chemical tanks containing 500,000 pounds of toluene diisocyanate in another area. The facility serves as a wholesale supplier to industrial facilities in the surrounding area for these and other (non-regulated) petroleum and industrial chemical products. The facility is within 0.2 mile of another industrial facility.

The facility has two covered processes: the flammable mixture tanks (Process A) and the toluene diisocyanate tanks (Process B). A worst-case release analysis finds that the worst-case release from Process A will potentially impact the adjacent industrial facility, but the worst case release from Process B will not impact any offsite receptors. Process A is subject to OSHA PSM, but Process B is not subject to OSHA PSM. Therefore, Process A is subject to Program 3 and Process B is eligible for Program 1. If Process B had been subject to OSHA PSM, it would also be subject to Program 3.

Source D

A metal products manufacturer stores hydrochloric acid (37 percent solution) and uses it in its plating process, which is connected to a storage tank that holds 50,000 pounds of the solution. Hydrochloric acid is delivered in tank trucks and unloaded into the storage tank. The manufacturer also operates a wastewater treatment plant that uses chlorine, supplied from five, interconnected one-ton tanks, which are stored in a rack. The facility is in an industrial area and borders directly on another industrial facility, whose workers park in the area close to the fence line. In addition, a river borders one side of the facility.

The facility has two covered processes: the 50,000-pound tank of hydrochloric acid at 37 percent (Process A) and the process involving five interconnected one-ton tanks of chlorine in the wastewater treatment plant (Process B). A worst-case release analysis finds that the worst-case releases from both processes will potentially impact the bordering industrial facility and its workers. Process B is subject to the OSHA PSM standard, but Process A is not. Process A is also not categorized in one of the ten listed NAICS codes for Program 3. Therefore, Process B is subject to Program 3 and Process A is subject to Program 2.

Source E

An inorganic chemical manufacturer uses hydrofluoric acid in solution to manufacture fluoroboric acid at a site that is approximately 500 yards square. It also has a water treatment plant using chlorine. The manufacturer stores 10 tons of 70 percent HF solution, which is piped to the reactor vessels. The wastewater treatment plant stores an average of ten one-ton tanks of chlorine together on a rack. The plant is in an industrial area. The HF storage tank is 150 yards from the property boundary. The nearest neighboring building or workers are 300 yards away.

The facility has two covered processes: the process involving the 10-ton tank of hydrofluoric acid at 70 percent (Process A) and process involving the ten co-located one-ton tanks of chlorine in the wastewater treatment plant (Process B). A worst-case release analysis finds that the worst-case releases from both processes will potentially impact the neighboring buildings and workers. Process B is subject to the OSHA PSM standard, but Process A is not. Process A activities are categorized in NAICS code 325188. Therefore, both processes are subject to Program 3.

Source F

A large chemical manufacturer operates a site that is approximately a half mile wide and two miles long, with a major river on one long side and a four-lane road on the other. There are industrial facilities on the other side of the road and river (a half-mile wide); neighboring facilities' fence lines abut the company's property boundary. The company maintains a 300-yard buffer zone on each narrow end of the facility and 50-yard buffer between its processes and the road and river. The company manufactures a variety of chemicals, including chloroform, chlorine, epichlorohydrin, ethylene, HCl, hydrogen cyanide, TDI, methyl chloride, phosgene, and propylene, all of which are present above threshold quantities in process vessels and storage tanks. The TDI process and storage tanks are located at the center of the facility. The ethylene and propylene tanks are located 500 yards from the river bank. A propane tank, used as a backup fuel source, is located just inside the buffer zone, 50 yards from the highway and 100-yards from the entrance of a facility across the highway.

Although the facility has a number of separate production and storage units, several of the units with regulated toxic substances are considered to be co-located and, therefore, are one process. The propylene and ethylene tanks are far enough apart to be considered separate processes. A worst-case release analysis determines that both of these tanks have no public receptors within the distances to their endpoint. The TDI process is not co-located or interconnected to any other covered process. A worst-case release analysis determines that the TDI process's worst-case release would reach its endpoint within the fence line. None of these three processes has experienced a release of a regulated substance during the past five years that resulted in any offsite consequences. Each of these is, therefore, eligible for Program 1. The propane tank also is not co-located with any other covered vessel. Because it is used as a backup fuel for buildings on site, it is not subject to the RMP regulation. The other processes are subject to Program 3 because at least one of the production or storage units in each process is subject to OSHA PSM, and their worst-case scenarios would impact public receptors.

