

Pollution Prevention (P2) Plan Annual Progress Reporting Requirements

Instructions for Completing the Required Annual Progress Report Form (TCEQ-00784)

Large quantity generators (LQGs) of hazardous waste and facilities reporting on TRI Form R are required to report annually on their progress toward pollution prevention goals laid out in their P2 Plan. The pollution prevention Annual Progress Report (APR) measures this progress, and provides an opportunity to review and update your plan and look for new ways to save money by reducing waste. LQGs and TRI reporters must meet the annual reporting requirement by submitting the required APR form (TCEQ-00784) by July 1 of each year. The APR form is available online at <www.P2Plan.org> or in the TCEQ guidance document *A Guide to Pollution Prevention Planning (RG-409)*.

The most important information collected in the Annual Progress Report is the amount of pollution reduced at the source (Part 3). This is the one piece of information the TCEQ could collect from no other source. It documents the amount of pollution that would have been generated if you did not have a pollution prevention project. Refer to Chapter 1 of RG-409 for a further definition of source reduction.

If you read the rule, you may notice a requirement for Annual Progress Reports for SQG reporters. Small quantity generators (SQGs) of hazardous waste that do not report on TRI Form R are not required to submit the required APR forms. Those facilities meet their Annual Progress Reporting requirements by submitting their Annual Waste Summary.

PURPOSE OF THE ANNUAL PROGRESS REPORT

The purpose of the APR is to assist facilities in monitoring and improving progress toward their pollution prevention goals and to measure statewide progress towards successful pollution prevention. The TCEQ analyzes APR data in order to:

- report the statewide status of pollution prevention to the Texas Legislature;
- communicate industrial pollution prevention progress to the press and public; and
- identify facilities for potential success stories.

Through accurate reporting of your P2 progress, you may contribute to the direction of future environmental programs in Texas.

The biggest benefit of the APR is for the facility. Regular reporting of the APR encourages facilities to

continuously monitor and reassess their pollution prevention efforts. Many companies improve the effectiveness of their pollution prevention programs because completion of the APR reveals additional opportunities to reduce waste and increase profits.

Need Assistance?

If you need ideas on how to improve the effectiveness of your pollution prevention activities, refer to the P2 options in Chapter 5 of RG-409. If you are unclear about the difference between source reduction and waste minimization, see the definitions provided in the introduction of the guide. To get the best results out of your P2 Plan, visit the technical assistance resources available at <www.P2Plan.org>.

ONLINE APR

The Annual Progress Report is also available online, for your convenience. Avoid messy paperwork, last-minute mailing, and lost reports by completing the APR form online. It's fast and easy, and you'll receive a confirmation by e-mail to let you know we received it, within minutes of your submission. You can also print out a copy for your own records.

Submitting the APR online has the added benefit of reducing typographical errors when data is entered. You insert the information and send it on its way. When we receive it, our system downloads the report data as is, which eliminates data entry mistakes on our end.

Another advantage of online filing is that you can complete your report early to avoid the last-minute rush, and avoid having to call and request a new form if you've misplaced yours. The online APR is typically available beginning about mid-May through July. During that time period it is accessible 24-hours-a-day, 7-days-a-week. By submitting your APR online, you can rest easy knowing it will arrive on time to meet the July 1 deadline.

Where to Report Online

You can complete your Annual Progress Report online using <www.P2Plan.org>. Most companies find this the quickest and easiest way to complete the Annual Progress Report. The TCEQ prefers online submissions to paper.

INSTRUCTIONS FOR COMPLETING THE APR FORM

Whether you want to submit your Annual Progress Report using paper or online, the following directions will guide you through the form. Copies of the APR form can be found in RG-409.

Part 1. Facility Description

Part 1 of the APR asks for facility and contact information. Check your answers in this section to ensure that you receive credit for your APR submission. Without correct facility information, we may not be able to locate your records.

Report year. Enter the calendar year being reported on the APR. Remember that although your report is due each July, the reporting period covers January through December of the previous year.

Report date. Enter the date that the report is sent to the TCEQ. All reports should be postmarked no later than July 1 of the year following the report year.

Company name. Enter the name of the company or corporation that appears on the notice of registration (NOR) for the facility. If you are a large company with several facilities, you should also enter a site name (for example, ABC, Inc., West Texas Plant).

Mailing address, city, state, and zip code. Enter the mailing address of the pollution prevention contact person. The address can be either a street address or a post office box. Use the five-digit zip code and, when known, the four-digit extension (xxxxx-xxxx).

Name of pollution prevention contact. Enter the name of the person who can answer questions about the facility's pollution prevention program from the public, the TCEQ, or other parties. This person does not have to be the same as the person who completed or oversaw completion of the APR, but the individual should be able to answer questions about the facility's P2 Plan.

Telephone, fax, e-mail. Enter area code, telephone number, and fax for the pollution prevention contact person. Include the e-mail address if you would like to receive electronic correspondence from the TCEQ.

Is your company independently owned or operated? If your company is part of a larger company, a subsidiary of another company, or is operated by another company, then the answer is "no."

Facility Identification Numbers. It is essential to provide the correct Solid Waste, EPA and TRI identification numbers. If you do not provide accurate ID numbers, your facility may not receive credit for the submitted report.

- Enter the 5-digit solid waste number from your TCEQ Notice of Registration (NOR).
- Enter the 12-character EPA ID number.
- Enter the 15-character TRI ID number from your TRI report, if applicable.

Number of employees. Enter the estimated total number of full-time employees at all company sites. For this form, a full-time employee means 2,000 work hours per year. You may wish to estimate the number of employees based on employee hours in a work week (see

Example 1). If your facility is owned by an extremely large company, you may answer "over 1,000."

Enter the date the P2 Plan was last updated. This would be the year your current five-year plan began. If applicable, attach a brief explanation of why the plan and Executive Summary were revised.

Check the box if you are currently a member of the CLEAN TEXAS program. Enter "X" if your facility is a CLEAN TEXAS member for the report year. If you would like information on this program, or want to become a member, please contact your CLEAN TEXAS coordinator at 512-239-3100, or by e-mail at <ems@tceq.state.tx.us>.

Part 2. Projected Amounts for Goal Year

In this section, report how much waste you expect to reduce by the end of the fifth year of your plan. It is an estimate, and the numbers reported each year will remain the same unless your facility goals are updated during the year to reflect better results or reduced expectations. Your goals can be found in your P2 Plan.

Goal year. This is the fifth year of your plan. If your plan begins in 2010, your goal year is 2014.

Row 1. Enter the projected amount of hazardous waste (Column A) that will be generated and the total projected amount of TRI (Column B) chemicals that will be released and transferred during the fifth year of your plan.

Row 2. Enter the estimated source reduction amount of hazardous waste (Column A) and/or TRI (Column B) chemicals that will be achieved over the five-year plan period (see Example 2).

Row 3. Enter the projected percent of hazardous waste and/or TRI chemicals remaining in year five of your plan (Row 1) that you plan to recycle, reuse, or treat with other waste minimization practices (see Example 3).

Part 3. Reduction Achievement for the Report Year

This section is the most important part of the Annual Progress Report. Use this section to report actual reduction amounts achieved for the report year. The report should reflect the previous calendar year's pollution prevention activities.

If you have difficulty matching your projects to our categories, refer to the section on "General Pollution Prevention Options" in Chapter 5 of RG-409 or refer to Table 1 (Source Reduction Activities by Category) in these instructions. You may not find an exact match, but most projects can be related to one of the categories provided. If you are still unable to list reductions achieved at your facility, describe the reduction and quantity in the box provided.

The amount of source reduction reported in Part 3 is an estimate of the amount of pollution that would have been generated if you had not undertaken a P2 project in the report year.

Rows 1 through 8. Estimate the amount of hazardous waste and TRI reduction achieved as a result of your P2 projects. Try to use one of the eight categories listed.

Table 1. Source Reduction Activities by Category

The following categories will help you classify your source reduction project for the Annual Progress Report.

Source Reduction Activities by Category	
Row 1 Good Operating Practices	Segregate hazardous waste from non-hazardous waste Segregate waste to increase recycling Improve maintenance scheduling, record keeping, or procedures Change production schedule to minimize equipment and feedstock changeovers
Row 2 Inventory Control	Institute procedures to eliminate expired materials Test outdated material—continue to use if still effective Institute better labeling procedures Inspect and label raw materials when they arrive Purchase materials only when needed Eliminate shelf-life requirements for stable materials Institute clearinghouse to exchange waste materials
Row 3 Spill and Leak Prevention	Improve storage and stacking procedures Improve procedures for loading, unloading, and transfer operations Install overflow alarms or automatic shut-off valves Install vapor recovery systems Implement inspection or monitoring program of potential spill and leak sources Update your spill response plan
Row 4 Raw Material Modification/ Substitution	Use aqueous cleaners instead of petroleum based solvents Increase purity of materials Substitute non-hazardous materials for hazardous materials Use low VOC paints and coatings
Row 5 Process and Equipment Modification	Institute recirculation within a process Modify equipment, layout or piping Use a different process catalyst Institute better controls on operating bulk containers to minimize discarding of empty containers Institute closed-loop recycling Change from small volume containers to bulk containers Replace out-dated equipment with more efficient models
Row 6 Cleaning and Degreasing	Modify stripping/cleaning equipment Change to mechanical stripping/cleaning devices (from solvents or other materials) Change to aqueous cleaners (from solvents or other materials) Modify containment procedures for cleaning units Improve draining procedures Redesign parts racks to reduce drag out Modify or install rinse systems Improve rinse equipment design Improve rinse equipment operation Reduce number of solvents used, to make waste more amenable to recycling
Row 7 Surface Preparation and Finishing	Modify spray systems or equipment Substitute coating materials used Improved application techniques Change from spray to other system
Row 8 Product Modifications	Change product specifications Modify design or composition of product Modify packaging

Example 1. Estimating the Number of Employees

Ed's Repair Shop has three full time mechanics (40 hours/week), a part-time custodian who works 10 hours per week, and a part-time secretary who works 30 hours per week. The secretary and the custodian work the equivalent of one full-time employee (total 40 hours/week). Therefore, the number of employees is four.

Example 2. Calculating Five-Year Source Reduction

A company has a P2 Plan that begins with the year 2008. In the year prior to their plan's start, 2007, they report 20 tons of xylene on the TRI Form R. The xylene is an ingredient in the solvent they use to prepare their product. During the first year of their plan, 2008, they plan to educate their employees on better handling of the solvent: placing lids on containers, minimizing spills, and checking for leaks in the process area. By implementing these inventory control procedures, they hope to use 5 tons/year less xylene.

In the second year, 2009, they plan to have a solvent reuse/recirculation device in place that will route unused solvent back into the process. This change is projected to result in a source reduction of 10 tons per year. By their third year, 2010, they hope to find an alternate material that does not contain hazardous or TRI-listed chemicals. This change will eliminate their remaining 5 tons of xylene.

Plan Year	Amount Source-Reduced	Amount Generated
2008	5	20 - 5 = 15 tons
2009	10	15 - 10 = 5 tons
2010	5	5 - 5 = 0 tons
2011	0	0
2012	0	0

Adding the amount of xylene that will be reduced each year from the middle column above equals the Total Source Reduction for the five-year plan. This company would then report 20 tons in Part 2, Row 2, Column B.

Example 3. Calculating Percent Waste Minimization

A company predicts they will generate 100 tons of hazardous sludge per year in the fifth year of their P2 Plan. In the fifth year they also plan to treat 30 tons of that sludge such that after treatment the waste will no longer be hazardous. Since, $30/100 = 0.3$, or 30% this company will enter 30% in Row 3 of Part 2 in Column A for "% Waste Minimization by the Goal Year".

Some projects may fit more than one category, you can use your best judgment in assigning a category.

Report HW reductions (tons) in Rows 1 through 8, Column A. Report reductions of TRI chemicals (tons) in Column B. The quantity of source reduction for a reporting year can be determined by measurement, or estimated using activity or production indexing. Example 4 shows a simple source reduction estimation.

Many companies have changes in pollution generated due to production changes, while simultaneously decreasing the amount of pollution through source reduction. If your production has changed, see Example 5. Some materials are classified as both HW and TRI. Due to different reporting standards, the amount of HW reported for a dual-classified material may be different from the amount of TRI reported for the same waste. When one of these dual-classified materials is reduced, the separate amount (tons) should be reported in Column A (for HW) and B (TRI) with different quantities. Example 6 illustrates this concept.

Row 9. Enter the sum of Rows 1 through 8 in tons.

"Briefly describe . . ."-This final area of Part 3 allows you to describe how you achieved your reductions and also share information about waste reductions of non-hazardous and non-TRI chemicals if you choose.

SHARE YOUR P2 SUCCESS

Have you found a great way to reduce waste and save money at your facility? Do you think it might work for other facilities like yours? The TCEQ is looking for success stories like yours to help companies find innovative new approaches to waste management in Texas. The Case Study, Success Story form provided as Worksheet 7 in RG-409 is an optional form for all WRPA reporting facilities.

The case study provides an excellent opportunity for facilities like yours to showcase their success. You can share valuable information about successful pollution prevention techniques and technologies with other facilities that may be trying to reduce similar wastes. If you have found a way—innovative and new, or tried and true—to reduce your waste at the source, we encourage you to tell us about it!

Example 4. Basic Source Reduction Estimation

A facility uses a solvent bath to clean filament wire in a batch process. Facility records document that in 1991, the 500-gallon tank contents were changed 10 times, generating 1 ton of HW each cleaning. In 1992, they began monitoring the solvent's condition, which resulted in only 9 changes of the tank contents. How much source reduction took place in 1992? What source reduction activity should it be reported under?

Step 1. Determine quantity of waste generated in 1991 and 1992 from the batch process.

$$\text{HW gen. 1991} = (10 \text{ cleanings}) \times (1 \text{ ton HW/cleaning}) = 10 \text{ tons}$$

$$\text{HW gen. 1992} = (9 \text{ cleanings}) \times (1 \text{ ton HW/cleaning}) = 9 \text{ tons}$$

Step 2. Determine the difference in quantities of waste generated between 1991 and 1992. What is the amount of source reduction (the total length of wire cleaned was the same each year)?

$$\text{HW Source Reduced} = 10 - 9 = 1 \text{ ton SR in 1992}$$

Answer: Amount SR in 1992 is 1 ton.

Reported in Part 3, in either Row 1 or Row 6, Column A.

(The monitoring could be considered either a "Good Operating Practice," or improvement to "Cleaning and Degreasing.")

Example 5. Estimating Source Reduction When There Is a Change in Production Rate

A facility manufactures widgets and generates an amount of hazardous waste (HW) that is directly proportional to the number of widgets produced. In 1991, they made 2,000 widgets and generated 5 tons of HW. In 1992, the facility manufactured 3,000 widgets, implemented a process modification and generated 7 tons of HW. How much source reduction took place for the 1992 reporting year? What source reduction activity should it be reported under?

Since waste is proportional to production, you can use the following ratio to help calculate source reduction:

$$\frac{\text{Year 1 HW}}{\text{Year 1 Prod.}} = \frac{\text{Year 2 HW (Calc)}}{\text{Year 2 Prod.}}$$

Thus

$$\text{Year 2 HW (Calc)} = \frac{\text{Year 1 Waste}}{\text{Year 1 Prod.}} \times \text{Year 2 Prod.}$$

And then

$$\text{Source Reduction} = \text{Year 2 Waste (Calc)} - \text{Year 2 Waste (Actual)}$$

Step 1: For this example, year 2 is 1992 and year 1 is 1991. Therefore, the waste that would have been generated if there had not been a process modification would be

$$1992 \text{ HW (Calc)} = \frac{5 \text{ tons HW}}{2,000 \text{ widgets}} \times 3,000 \text{ widgets} = 7.5 \text{ tons HW}$$

Step 2: Determine the amount of source reduction

$$\text{Amount Source Reduction} = 7.5 - 7.0 = 0.5 \text{ tons in 1992}$$

Answer: Amount SR in 1992 is 0.5 tons.

Reported on Part 3, Row 5, Column A

Example 6. Materials Reported under Both TRI and Hazardous Waste Regulations

ABC Manufacturing reports benzene on its Annual Waste Summary and the TRI Form R. The benzene releases result from leaks in their pipes and connections. In order to prevent the leaks from contaminating groundwater, the floor is washed every night, and the water-benzene mixture is sent to an off-site wastewater treatment plant.

Different Reported Amounts for the Annual Waste Summary and TRI. On the TRI Form R, the total releases and transfers of benzene are reported as 4,000 pounds (2 tons.) On the Annual Waste Summary, the benzene shipped off site is reported as 50 tons. This difference results because the benzene was disposed of in a water-benzene mixture. Under the hazardous waste regulations, when a non-hazardous substance is mixed with a hazardous substance, the entire mixture becomes hazardous. In contrast, the TRI reporting requirements only require facilities to report the amount of toxic chemical released or transferred. Because the reporting requirements are different, the amount of hazardous waste source reduced, as reported in Column A of Part 3, will differ from the amount of TRI chemical source reduced, as reported in Column B of Part 3.

Source Reduction Project. ABC manufacturing installed dry disconnect couplings on most of their flanges, reducing the accidental leaks and spills, and thus reducing the amount of wastewater needed to handle the benzene. Since installing these dry disconnect couplings, the amount of benzene contaminated wastewater reported on the Annual Waste Summary was reduced from 50 tons to only 1 ton. The benzene releases and transfers reported on the TRI Form R dropped from 2 tons per year to 0.2 tons per year.

Reporting on APR Part 3

Hazardous Waste Source Reduction = 50 tons - 1 ton = 49 tons

TRI Source Reduction = 2 tons - 0.2 tons = 1.8 tons

On the TRI Form R, Section 8, the company noted that their activity has the Source Reduction Activity Code of W39, "other spill and leak prevention," and therefore the activity will be listed on Row 3 of the APR Part 3 for both hazardous waste and TRI columns.

Note: You may find that your TRI reductions and your hazardous waste reductions are not proportional. In this example, the facility achieved a 98 percent reduction in hazardous waste, but only an 80 percent reduction of TRI chemicals.

How the TCEQ Uses Case Studies

The TCEQ uses case studies to inform the Legislature of P2 progress in Texas, to share useful P2 knowledge with other facilities, and to recognize P2 champions in TCEQ publications, on the Internet, and in public media.

When a case study is submitted to the TCEQ, a team of P2 professionals reviews the information, verifies that reported activities qualify as source reduction or waste minimization, and edits the information, if necessary. All TCEQ-approved case studies are then returned to the facility for final approval before being posted to the Internet, used in publications, or released to the media. To submit a case study, please see Chapter 9, Worksheet 7 in RG-409.

The TCEQ has partnered with the Southwest Network for Zero Waste at University of Texas at Arlington to post case studies on the Web. To view case studies submitted by other Texas facilities, or to post your success story to the Internet on your own, visit <www.ZeroWasteNetwork.org> and click the Success Stories link.

SUBMITTING ANNUAL PROGRESS REPORTS (APRs)

Your first Annual Progress Report is due on July 1 after the first full year of your P2 Plan. Subsequent APRs are due on July 1 for each year of your P2 Plan. For example, a facility whose P2 Plan begins with the calendar year

of 2008 is required to submit an APR by 7/01/2009. Each APR submitted should report information about reduction achievements made in the previous calendar year.

You may submit your APR by mail or online. Online submission is available at <www.P2Plan.org>, through the "Online Annual Progress Report" link. Reports may be submitted online only from about mid-May through July each year. All late reports must be mailed.

To submit a paper form via mail, send the original P2 Annual Progress Report with report year, current contact, and source reduction quantities for the previous year. All envelopes should be clearly marked as an Annual Progress Report and mailed to:

Annual Progress Report
Pollution Prevention Planning, MC 112
Texas Commission on Environmental Quality
PO Box 13087
Austin, TX 78711-3087

Fast Facts

- ▼ The most important requirement in WRPA is to prepare a P2 plan and keep it on site.
- ▼ WRPA reporters are required to send an Executive Summary of their plan to the TCEQ once every five years.
- ▼ Annual Progress Reports are due for LQGs and TRI Form R reporters on July 1, and can be completed online or by using paper forms.

GETTING ADDITIONAL ASSISTANCE

If you need to order additional forms, guides, or other TCEQ publications, call Publications at 512-239-0028. For additional assistance on submitting your P2 planning documents or completing forms, or for specific inquiries about WRPA requirements, contact the Pollution Prevention Team, at:

Phone: 512-239-3100

Fax: 512-239-5678

E-mail: p2@tceq.state.tx.us

or

Visit one of our Web sites:

Home page: www.tceq.state.tx.us

P2 page: www.P2Plan.org