

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/or 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 in this guide, as well as online www.P2Plan.org.

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.

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 to 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 *A Guide to Pollution Prevention Planning (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 typographic errors when data is entered. You insert the information and send it on its way. When we receive it, it gets downloaded to our system as is, which eliminates data entry mistakes on our end. Plus, the online APR is accessible 24 hours a day, every day.

Another advantage of online filing is that you can get your report done early to avoid the last minute rush, and avoid having to call and request a new form when you've misplaced yours. 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

We recommend that you calculate your answers on a separate sheet of paper before completing the final form for submission. This ensures that your submission is clean and legible, with minimal mistakes and corrections. If you want to submit your Annual Progress Report using paper, the following directions will guide you through the form.

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 to 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 the four-digit extension (xxxxx-xxxx), when it is known.

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 correspondence from TCEQ through the Internet.

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, Cleaner World program. Enter “X” if your facility is a Clean Texas, Cleaner World member for the report year. If you would like information on this program, or want to become a member, please contact your Clean Texas, Cleaner World coordinator at 512/239-3100, or by e-mail at: **ppc@tceq.state.tx.us**.

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.

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 estimation, 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 2003, your goal year is 2007.

Row 1—Enter the estimated amount of hazardous waste (Column A) to be generated and the total estimated amount

of TRI (Column B) chemicals to be released and transferred for your goal year.

Row 2—Add the total amount of hazardous waste (Column A) and/or TRI (Column B) chemicals that will be source-reduced over the five-year period (See Example 2).

Row 3—At the end of your five year plan, you will have a certain amount of hazardous waste and/or TRI chemicals remaining (Row 1). What percentage of Row 1 do you plan to recycle, reuse, or implement other waste minimization practices? (See Example 3)

Example 2. Calculating Five-Year Source Reduction

A company reports 20 tons of xylene on the TRI Form R in their prior year. The xylene is an ingredient in the solvent they use to prepare their product. During the first year of their plan they plan to educate their employees on better handling of the solvent: putting 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 they plan to have a solvent reuse/recirculation device in place that will route unused solvent back into the process. This change will result in a source reduction of 10 tons per year. By their third year they hope to find an alternate material that does not contain hazardous or TRI-listed chemicals. This change will source-reduce their remaining 5 tons.

Plan Year	Amount Source-Reduced	Amount Generated
Year 1	5	20 - 5 = 15 tons
Year 2	10	15 - 10 = 5 tons
Year 3	5	5 - 5 = 0 tons
Year 4	0	0
Year 5	0	0

Add the amounts to be source-reduced (in the shaded column) in each year of the plan to get the Total Source Reduction. This company would then report 20 tons in Part 2, Row 2, Column B.

Example 3. Calculating Percent Waste Minimization for the Goal Year

A company generates 100 tons of hazardous sludge per year. In the first year they treat 10 tons. After treatment the waste will no longer be hazardous. The second year they expect to treat 15 tons. The third year they expect to treat 20 tons. By the fifth year they expect to treat 30 tons.

Row 3 is only for reporting fifth-year projections (based on the Source Reduction Waste Minimization Plan). Therefore, this company would report:

$$1 - \left[\frac{(100 \text{ tons Total}) - (30 \text{ tons Waste Minimized in the Fifth Year})}{(100 \text{ tons Total})} \right] = 0.3 \text{ or } 30\%$$

Part 2, Row 3, Column A would read 30%

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 a difficult time matching your projects to our categories, look at the "Checklist of Pollution Prevention Options" in Chapter 5 of *A Guide to Pollution Prevention Planning (RG-409)* or the "Source Reduction Activities by Category" in Example 4. 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. 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 quantities source-reduced for a reporting year can be determined by measurement, or estimated using activity or production indexing. Example 5 shows a simple source reduction estimation.

Many companies have changes in pollution due to production changes, while simultaneously decreasing the amount of pollution through source reduction. If your production has changed, see Example 6. 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 source-reduced, the separate amount (tons) should be reported in Column A (for HW) and B (TRI) with different quantities. Example 7 illustrates this concept.

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

Describe your primary P2 method—This area is where you describe how you achieved your reductions.

Example 4. Source Reduction Activities by Category

Source Reduction Activities by Category	
Row 1 Good Operating Practices	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Modify spray systems or equipment Substitute coating materials used Improved application techniques Change from spray to other system
Row 8 Product Modifications	<ul style="list-style-type: none"> Change product specifications Modify design or composition of product Modify packaging

Example 5. 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, raw material changes resulted in the tank contents being changed 10 times, generating 0.9 tons of HW with each cleaning. 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.

$$\begin{aligned}\text{HW gen. 1991} &= (10 \text{ cleanings}) \times (1 \text{ ton HW/cleaning}) = 10 \text{ tons} \\ \text{HW gen. 1992} &= (10 \text{ cleanings}) \times (0.9 \text{ ton HW/cleaning}) = 9 \text{ tons}\end{aligned}$$

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

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

Reported on Part 3, Row 5, Column A

Example 6. Total Amount Source-Reduced Calculation (Estimate) Based on Activity/Productivity Index

A facility manufactures widgets and generates a hazardous waste stream, waste stream 1 (ws1). The amount of HW generation associated with ws1 is directly proportional to how many widgets are produced. In 1991, 5 tons of HW was generated for 2,000 widgets. In 1992, the facility manufactured 3,000 widgets with 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?

Step 1. Calculate Activity/Production Index

$$\text{A/P Index} = 3,000 / 2,000 = 1.5$$

Step 2. Multiply waste quantity generated in 1991 by the A/P Index.

$$(5 \text{ tons}) \times (1.5) = 7.5 \text{ tons}$$

Step 3. Subtract the 1992 waste quantity from the quantity that would have been generated without process modification (source reduction activity).

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

Answer: Amount SR in 1992 is ton.

Reported on Part 3, Row 6, Column A

Example 7. 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 nonhazardous 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 material source reduced, as reported in Column A of Part 3, will differ from the amount of TRI material 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 Section 3

$$\begin{aligned}\text{Hazardous Waste Source Reduction} &= 50 \text{ tons} - 1 \text{ ton} = 49 \text{ tons} \\ \text{TRI Source Reduction} &= 2 \text{ tons} - 0.2 \text{ tons} = 1.8 \text{ tons}\end{aligned}$$

Looking 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 4 of Section 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.

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 1 in this chapter is an optional form for all WRPA reporting facilities.

The case study provides an excellent opportunity for facilities like yours to showcase your own 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!

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.

The TCEQ has partnered with the Southwest Network for Zero Waste at University of Texas at Austin to post case studies on the World Wide Web. To view case studies submitted by other Texas facilities, or to post your success story to the Internet on your own, visit the Web site, www.ZeroWasteNetwork.org.

Directions for Optional Worksheet 1: Case Study, Success Story

Case studies are ways to share your success with others. The TCEQ may spotlight your case study in workshops, in our online database (www.P2Plan.org), and even as a candidate for awards and recognition of innovative projects.

The best case studies describe the amount of pollution prevented (tons of toxic chemicals avoided, gallons of water saved), the dollars saved, and how the reduction was achieved.

Information submitted on this form (like other documents submitted under WRPA) is considered available to the public. One of our staff may contact you as a courtesy if we are considering using it in a publication.

If you have found a successful way to reduce waste at your facility, then you are a P2 success! Share your story with us by faxing this completed form to the Pollution Prevention Team at 512/239-3165.

SUBMISSION OF APR

Your first Annual Progress Report is due 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 that completes the initial P2 Plan in the year 2000 is required to submit an APR by 7/01/2001. Each APR submitted should report information about reduction achievements in the previous year.

When submitting your Executive Summary, make sure the Certificate of Completeness and Correctness has an original signature and provides the printed name, title, and date. Do not send a copy of your entire plan, and do not fax your P2 Plans, Executive Summaries, or Annual Progress Reports unless requested by TCEQ staff.

Submit 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 Annual Progress Report and mailed to:

Annual Progress Report
Industrial Pollution Prevention Team, 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 plan and keep it on site.
- ▼ WRPA reporters are required to send an Executive Summary of their plan to TCEQ.
- ▼ Annual Progress Reports are due for some reporters on July 1, and can be done 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 sending your submission, completing forms, or getting help with specific inquiries about WRPA requirements, contact the Industrial Pollution Prevention Team at:

Phone: 512/239-3100

Fax: 512/239-3165

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

or

Visit one of our Web sites:

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

P2 page: www.P2Plan.org