

ADEQ's P2 Program

**Webinar: *Pollution Prevention Training*
February 21, 2017**



- This webinar will be muted to reduce or eliminate external auditory disturbances;
- The webinar will be available for download at <http://wsppn.org/webinars/>
- If you are experiencing technical difficulties, call 1-800-263-6317, or 1-805-617-7000. Press 2 when prompted.

Brought to you by:

- The Western Sustainability Pollution Prevention Network
- The Arizona Department of Environmental Quality

Webinar Agenda

10:00 AM Webinar Overview

10:05 Presentation

10:50 Q&A

11:00 AM Adjourn



Jeanine K. Inman, P.E.
Associate Environmental Engineer



Linneth A. López
Environmental Engineering Specialist III

Pollution Prevention (P2) Program Training

Linneth A. Lopez
Jeanine Inman
February 21, 2017

Who we are

Under the Environmental Quality Act of 1986, the Arizona State Legislature created ADEQ in 1987 as the state's cabinet-level environmental agency. ADEQ is composed of three environmental programs: Air Quality, Water Quality and Waste, with functional units responsible for technical operational and policy support.

Mission

To protect and enhance public health and the environment in Arizona.

Vision

To be the No. 1 state in the nation in:

- Balanced, leading-edge environmental protection
- Technical and operational excellence
- Radical simplicity for customers and staff

What is Pollution Prevention?

Pollution Prevention (P2) is any activity that reduces waste at the source.



Reducing the amount of pollution produced means less waste to control, treat or dispose.

1990 Federal P2 Act

- Pollution should be prevented or reduced at the source

P2 is reducing or eliminating waste at the source by:

Modifying
production
process

Promoting the
use of non-
toxic/less toxic
substances

Implementing
conservation
techniques

Re-using
materials and
removing them
from the waste
stream

- EPA's definition



Arizona's P2 Program

1991

Broadest P2
program in the
Nation

Reduction of:
Toxic Substance Use
Hazardous Waste
Generation



For more information see the Arizona Revised Statutes
(A.R.S.) §§49-961 to 49-973

What is P2 in Arizona?

Business Operational Changes

Reclamation

Spill and Leak Prevention

Reuse

Inventory Control

Toxic Substance Use Reduction

Conservation

Source Reduction

Substitution

Recycling

Waste Minimization

P2 in Arizona

Activities that avoid, eliminate or reduce the generation of hazardous waste, the toxic substance use, or the release of a pollutant or contaminant at the source

Control without Prevention

- RCRA
- Clean Water Act
- Air Regulations

End-of Pipe Approaches

- Treatment
- Discharge
- Disposal

Environmental Challenges Exist

- Landfills
- Toxic Substance Use
- Hazardous Waste Generation



Waste Management Hierarchy

The most preferable option is **source reduction**.

Pollution that is never created does not have to be managed, treated or disposed.

The second best option is **recycling**.



Let's take a look at the thresholds (or limits)!

A P2 Plan is required if during the **previous** calendar year a facility:

- ✓ Filed a **Toxic Release Inventory** (TRI) Form (form R or A)
- ✓ Used in excess of **10,000 pounds** of a **TRI listed chemical**
 - See the *Interpretation of "use" of toxic substances in excess of 10,000 pounds for the P2 program*
- ✓ Generated or shipped off-site, for purposes other than recycling, an average of
 - **2,200 pounds** (1,000 kg) per month of **hazardous waste** or
 - or **2.2 pounds** (1 kg) per month of **acute hazardous waste**

Facilities only need to meet any one of the above thresholds to be required to submit a P2 Plan.

Are there any exemptions?

Yes! Please go to our website to find out if your facility meets any of the exemptions!

www.azdeq.gov

The screenshot shows the ADEQ website homepage. At the top, there is a navigation bar with links for State Agencies, State Services, and Visit OpenBooks. The ADEQ logo is prominently displayed on the left, and a search bar is on the right. Below the logo, a horizontal menu contains several items: HOME, ABOUT US, PERMITS, PROGRAMS (which is circled in red), FOR BUSINESSES, RECORDS CENTER, and DATABASES. To the right of this menu are icons for QUICK PAY and myDEQ. The main content area features a large banner titled "Proactive screening for lead in school drinking water" with a sub-headline "Are Arizona's children at risk?" and a "Learn More >" button. Below the banner, there are two columns: "OUR MISSION" with the text "To protect and enhance public health and the environment" and a "Learn More >" link, and "FEATURED CURRENT NEWS" with a list of items including "Emergency Response", "Community Outreach", and "File A Complaint". At the bottom, there are two more sections: "FREQUENTLY VIEWED" with a "Welcome to ADEQ" link, and "NEW PUBLIC NOTICES" with a "See all >" link.

State Agencies State Services Visit OpenBooks Search AZ.Gov az.gov

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QUICK PAY myDEQ

Proactive screening for lead in school drinking water

Are Arizona's children at risk?

Learn More >

OUR MISSION

To protect and enhance public health and the environment

Learn More >

FEATURED CURRENT NEWS

+ Emergency Response

Community Outreach

File A Complaint

ADEQ is issuing a High Pollution Advisory (HPA) for Saturday, Dec. 31, 2016, and Sunday, Jan. 1, 2017, for fine particulate matter (PM 2.5) for Maricopa County & Nogales, Arizona. This HPA is due to particle pollutant levels expected to accumulate enough to exceed the federal health standard...[See more >](#)

FREQUENTLY VIEWED

Welcome to ADEQ

NEW PUBLIC NOTICES See all >

Feb.24 - COMMENT PERIOD ENDS | Preliminary Decision to Issue a State Water Quality

Jan.23 - COMMENT PERIOD BEGINS | Preliminary Decision to Issue a State Water

Pollution Prevention (P2)

[Air Quality Programs](#) ▶

[Waste Programs](#) ▶

[Water Quality Programs](#) ▶

[Engineering Review](#)

[Other Programs](#) ▶

[Brownfields](#)

[Hazardous Waste Management](#)

[Pollution Prevention \(P2\)](#)

[Recycling](#)

[Solid Waste](#)

[Superfund | Federal DOD Sites](#)

[Superfund | Federal NPL Sites](#)

[Superfund | State WQARF Sites](#)

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[Voluntary Remediation Program \(VRP\)](#)

Pay your bills
NOW
with  **QUICK
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OUR MISSION

To protect and enhance
public health and the
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 [File A Complaint](#)

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[Learn How >](#)



-  Save as (displaying dialog box)
-  Save directly (using print command)
-  Open in image editor
-  Copy to clipboard



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WASTE PROGRAMS DIVISION

[SOLID WASTE](#) | [HAZARDOUS WASTE MANAGEMENT](#) | [P2](#)

[RETURN TO LEARN ABOUT THE WASTE PROGRAMS DIVISION](#)

Pollution Prevention (P2) Planning Program

ADEQ's Pollution Prevention Planning Program (P2) assists certain businesses in reducing toxic substances at their source, minimizing the generation of hazardous waste and preventing the release of pollutants into the environment. To accomplish this, these businesses must implement a P2 Plan.

What is a P2 Plan?

A P2 Plan is a management document that provides information on facility operations that directly or indirectly produce waste or use toxic substances. The plan involves:

- Recording the facility's toxic substance use, emissions and waste from current work practices
- Outlining potential P2 opportunities and providing specific performance goals, including a schedule for implementing pollution prevention activities
- Documenting that the facility has performed a rigorous P2 assessment
- Recognizing past P2 activities that have already been completed at the facility, when available

P2 Objectives

As Arizona grows, so does the generation of hazardous waste and the use of toxic substances. A great way for businesses and citizens to improve our environment is to reduce this growth without shifting the pollutant release between land, water or air. The purpose of the P2 Planning Program is to:

- Reduce the use of toxic substances and hazardous waste generation in our state
- Emphasize the preference for source reduction over recycling, waste treatment or disposal
- Encourage reduction through methods such as substitution with a less toxic chemical and product reformulation
- Implement process modification

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FOR BUSINESSES

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[P2 Forms >](#)
[Resource Summaries >](#)

UPCOMING WORKSHOPS

[View dates >](#)

RELATED LINKS

[EPA Toxic Release Inventory \(TRI\) Program >](#)

FOR THE PUBLIC

Navigating the P2 Program Webpage



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UPCOMING WORKSHOPS

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RELATED LINKS

[EPA Toxic Release Inventory \(TRI\) Program >](#)



FOR THE PUBLIC

[What does Pollution Prevention \(P2\) Mean?](#)
[P2 House >](#)

- [Sustainable Furniture >](#)
- [Energy Conservation >](#)
- [Water Conservation >](#)
- [Interior Painting >](#)
- [Green Cleaning >](#)
- [Living Room >](#)
- [Garage/Laundry >](#)
- [Bedroom >](#)
- [Bathroom >](#)
- [Kitchen >](#)
- [Front/Backyard >](#)



LAW & RULE

[Substantive Policies >](#)
[Toxic Data Report | Progress Report | Exemption >](#)
[P2 Plan | Progress Report | Exemption >](#)
[Review of: Reports, Plans, Enforcement, Contempt >](#)
[P2 Technical Assistance Program >](#)
[Availability of information to the Public >](#)
[Department Rules for Adding/Deleting Toxic Substances >](#)
[Consumer Product Information >](#)
[P2 Plan for State Agencies >](#)
[Toxic Data Report for State Agencies >](#)

Are there any exemptions?

See step #2 in Determining a Business's Eligibility for the P2 Program on the website

➤ View P2 Planning Exemptions

7 exemptions related to:

- Facilities located in tribal land
- Household hazardous waste collection facilities
- Treatment, storage, disposal facilities
- Toxic substance use related to mining or metallurgy processes
 - Please make sure to read the policies as not every process in mining or metallurgy is exempted
- Facilities that caused a one-time, unexpected event where a hazardous waste was generated





Follow the Steps

1. Determine if your company needs to file P2 plan by reviewing filing thresholds
2. Review P2 filing exemptions
3. **Complete a *Determination of P2 Plan Filing Status Form***
4. *P2 Staff will determine your business Eligibility*

P2 Determination Form

Determination of Pollution Prevention (P2) Plan Filing Status

- Used to determine if P2 thresholds are met
 - ✓ Toxic substance use
 - ✓ Hazardous waste generation
- Determines if exemptions are met
- Collects information on the major processes at the facility
- Collects information on the toxic substances reported to the Toxic Release Inventory (TRI) program
- Collects the last three years of hazardous waste generated including the amount recycled
- Collects information on water conservation, energy management, recycling and environmental management systems

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Determination of Pollution Prevention (P2) Plan Filing Status

Please complete this form and return it via e-mail to p2@adeq.gov. If you do not have e-mail access, hard copies can be mailed to the attention of ADEQ P2 Program, 1110 W. Washington Street, Phoenix, AZ 85007.

The questions below are to be answered using the previous year information; i.e. if you are in year 2016, then information should be for year 2015, etc.

FACILITY NAME: _____

LOCATION ADDRESS: _____

PRECEDING REPORTING YEAR: _____

YES	NO	QUESTION
<input type="radio"/>	<input type="radio"/>	1. My facility is a household hazardous waste collection facility. [A.R.S. §49-961(2)]
<input type="radio"/>	<input type="radio"/>	2. My facility is primarily engaged in receiving waste from off-site and has a permit issued or plan approved by ADEQ for the storage, treatment or disposal of solid, special or hazardous waste. [A.R.S. §49-961(2)]
<input type="radio"/>	<input type="radio"/>	3. My facility is located on tribal land.
<i>If you select "Yes" to questions 1 – 3, you DO NOT need to complete the rest of this form. Please check the box at the end of the form confirming that you have provided accurate information, include your contact information and the date, and submit for review.</i>		
<input type="radio"/>	<input type="radio"/>	4. My facility has a current P2 Plan on file with the ADEQ. If you answered yes, list the P2 Plan ID number assigned to your facility: _____ [A.R.S. §49-963(A)]
<input type="radio"/>	<input type="radio"/>	5. During the preceding calendar year, the owner or operator of this facility was required to file an annual (EPA) Toxic Release Inventory form (TRI) for the facility. My facility filed _____ (Total # of Forms R + A). The facility TRI ID Number (if known) is: _____ [A.R.S. §49-962(A)(1)] Refer to EPA's TRI screening threshold tool to determine if your facility is required to file a TRI form http://www2.epa.gov/toxics-release-inventory-tri-program/tri-threshold-screening-tool
<input type="radio"/>	<input type="radio"/>	6. During the preceding calendar year, the facility generated or shipped offsite for purposes other than recycling an average of 1 kilogram (2.2 pounds) per month of acutely hazardous waste. [A.R.S. §49-962(2) and A.R.S. §49-963(B)] The EPA/Resource Conservation and Recovery Act (RCRA) ID # for this facility is _____
<input type="radio"/>	<input type="radio"/>	7. During the preceding calendar year, the facility generated or shipped offsite for purposes other than recycling an average of 1,000 kilograms (2,200 pounds) per month of hazardous waste. [A.R.S. §49-962(2) and A.R.S. §49-963(B)] The EPA/RCRA ID # for this facility is _____
<input type="radio"/>	<input type="radio"/>	8. My facility used in excess of 10,000 pounds of a (TRI listed) toxic substance during the preceding calendar year [A.R.S. §49-963(D)]
<input type="radio"/>	<input type="radio"/>	9. The toxic substances used at my facility were pesticides for agricultural application subject to reporting and record keeping requirements, or my facility has been issued an agricultural general permit. [A.R.S. §49-963(O)]
<input type="radio"/>	<input type="radio"/>	10. The toxic substances used at my facility during the preceding calendar year were materials used or produced in connection with a mining or metallurgical operation. [A.R.S. §49-963(A)]. For additional clarification on mining, please review the Pollution Prevention Plans Mining Operations Exempt policy and for additional clarification on metallurgical operations, please review the Pollution Prevention Plans Metallurgical Operations Exempt policy.
<input type="radio"/>	<input type="radio"/>	11. The hazardous waste generated in the preceding calendar year was due to an episodic, accidental or remediation related release or occurrence. [A.R.S. §49-963(N)]
<input type="radio"/>	<input type="radio"/>	12. My facility caused a one time event in the preceding calendar year that generated hazardous waste or an acutely hazardous waste from an unused hazardous substance, and the unused hazardous waste cannot lawfully be used due to changes in statute or rule. [A.R.S. §49-963(M)]

I met the thresholds, what is a P2 Plan?

Stand Alone Management Document

Analyzes Work Practices and Operations

Outline Potentials for P2 Opportunities and Goals

Required a minimum of two years but can extend longer

Required to maintain as long as facility meets P2 thresholds

Components of a successful P2 Plan



Updated P2 Plan Forms

Updated P2 Plan Forms

- Fillable forms
- Reduced to 5 sections
- Certain sections automatically fill
- Training goal no longer required as a goal
 - Training information is required as part of the plan in Section 1
- Forms contain a single copy of each section to avoid paper waste.
 - Can obtain copies of additional sections through P2 webpage.

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Pollution Prevention (P2) New Plan

If you are submitting an amendment to your existing plan please do not use these forms. These forms are only for New Plan filers.

For faster processing, it is preferred that you email your completed plan. Send the completed plan to your assigned reviewer. If you do not know your assigned reviewer, or you do not know your P2 ID number please send an e-mail to p2@azadeq.gov. Alternatively, you may mail the plan to the address shown below:

ADEQ Solid/Hazardous Waste Unit
Attn: (Insert Name of Reviewer)
1110 W. Washington St.
Phoenix, AZ 85007

How many facilities will be covered by this plan? Select one option below.

- ☐ **Single Facility, Single Goal (One location, one goal)** – Complete entire plan i.e. Sections 1, 2, 3, 4 and 5.
- ☐ **Single Facility, Multiple Goals (One location, more than one goal)** – Complete entire plan i.e. Sections 1, 2, 3, 4 and 5 and insert Section 3s for additional process areas and Section 4s for additional goals as needed.
- ☐ **Multiple Facilities, Non-Umbrella (Different locations and different sets of goals)** – Complete Sections 1 and 5 once. Insert Sections 2, 3 and 4 for EACH location and additional Section 3s and Section 4s as needed.
- ☐ **Umbrella Plan with Multiple Facilities, Same Goals (Different locations, all locations have same goals)** – Complete Sections 1 and 5 once, and Section 2 for EACH location. Insert Section 3s and 4s as needed.
- ☐ **Umbrella Plan with Multiple Facilities, Different Goals (Different locations, all with different goals)** – Fill out Sections 1 and 5 once, and Section 2 for EACH location. Insert Section 3s and 4s as needed.

Obtain additional copies of [Section 2, 3 and 4](#).

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Updated P2 Amendment Forms

Amendment Form Updates

- Fillable forms
- Reduced to 4 sections
- Certain sections automatically fill
- Training goal no longer required as a goal
 - Training information is required as part of the plan in Section 1
- Forms contain a single copy of each section to avoid paper waste.
 - Can obtain copies of additional sections through P2 webpage.

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Pollution Prevention (P2) Amendment

For faster processing, it is preferred that you email your completed amendment. Send the completed amendment to your assigned reviewer. If you do not know your assigned reviewer, or you do not know your P2 ID number please send an e-mail to p2@azdeq.gov. Alternatively, you may mail the plan to the address shown below:

ADEQ Solid/Hazardous Waste Unit
(Insert Name of Reviewer)
1110 W. Washington St.
Phoenix, AZ 85007

How many facilities will be covered by this plan? Select one option below.

- ☐ Single Facility, Single Goal (One location, one goal) – Complete entire plan amendment i.e. Sections 1, 2, 3 and 4.
- ☐ Single Facility, Multiple Goals (One location, more than one goal) – Complete entire plan amendment i.e. Sections 1, 2, 3 and 4. Insert Section 3s for additional process areas and Section 4s for additional goals as needed.
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Obtain additional copies of [Section 2](#), [3](#) and [4](#).

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Updated Progress Report Cover Page



Pollution Prevention (P2) Annual Progress Report 2016

Pre-populated
with facility
contact
information

Contact Information: Attn: Jane Keurtig - P2 ID #: 200326
ABC Incorporated
1500 W. Maricopa Hwy
Casa Grande, AZ 85193
Telephone #: 480-411-6470
E-Mail: Jane.Keurtig@abc.com

Contact Information Corrections:

Please fill out the facility information below:

My facility has implemented a P2 team? ☐ Yes ☐ No Previous for 2015: Yes

My facility has implemented an Environmental Management System (EMS)? ☐ Yes ☐ No Previous for 2015: No

The number of employees trained in pollution prevention awareness (ARS 49-963.J.9) in 2016 was:
If employees were not trained in 2016, please provide an explanation below and an expected date (mm/dd/yy) when training will be completed.

If your training material has changed since you submitted your last progress report please submit a copy of the updated training.

The amount of hazardous waste generated and recycled at my facility over the last three calendar years.

	Generated (pounds)	Recycled (pounds)
2014		
2015		
2016		

I certify that I have personally examined this Progress Report, that I am familiar with its content and attachments, and I believe the information presented in this report is true, accurate and complete.

Name (please print or type): Travis Rosebaum

Signature: _____ Title: Site Director

Date: _____ Telephone #: 520-421-6200

E-mail: Travis.rosebaum@abc.com

EPA ID (RCRA ID #): AZD981399584 EPA TRI ID: 85342RSSLB1500W

Send completed forms to:

ADEQ Pollution Prevention Program
1110 W. Washington Street
Phoenix, AZ 85007
or e-mail to p2@azdeq.gov

Questions or help: email p2@azdeq.gov

Include
training
information
here

Include
hazardous
waste
information

Annual Toxic Data Reports (TDR's):

- Due by July 1st of each year
- Reminders sent during April/May
- Contain several of the documents below:
 - Progress report instructions
 - Progress report cover sheet
 - Goal forms
 - Amendment
 - TRI Submittal



P2 Forms



FOR BUSINESSES

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[Determining a Business's Eligibility >](#)

[P2 Thresholds >](#)

[Tips for Creating a Successful Plan >](#)

[P2 Planning Helpful Resources >](#)

[P2 Forms >](#)

[Resource Summaries >](#)



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[< RETURN TO POLLUTION PREVENTION \(P2\) PLANNING PROGRAM](#)

P2 Forms

The Following form are available to you for submitting your P2 Plan

- [Determination of P2 Plan Filing Status](#) | [Download Form >](#)

P2 Plan

- [Complete New Plan](#) | [Download Form >](#)
 - [P2 Plan Section 2](#) | [Download Form >](#)
 - [P2 Plan Section 3](#) | [Download Form >](#)
 - [P2 Plan Section 4](#) | [Download Form >](#)
- [Complete Amendment](#) | [Download Form >](#)
 - [P2 Amendment Section 2](#) | [Download Form >](#)
 - [P2 Amendment Section 3](#) | [Download Form >](#)
 - [P2 Amendment Section 4](#) | [Download Form >](#)



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P2 Planning Resources

Sector Specific Resources for Business



EPA's [Industry Specific Sector Notebooks](#) contain profiles and P2 opportunities for different business sectors. EPA's [P2 Resources for Business](#) provides useful P2 information for auto repair, healthcare, metal finishing and janitorial activities. [Topic Hubs](#) from the Western Sustainability and Pollution Prevention Network (WSPPN) provide specific P2 opportunities for different business sectors. These web-based guides contain peer-reviewed information as well as key processes for different business operations. [ADEQ's EMS guidance document](#) was prepared to assist small-to-medium sized businesses establish and maintain an EMS.

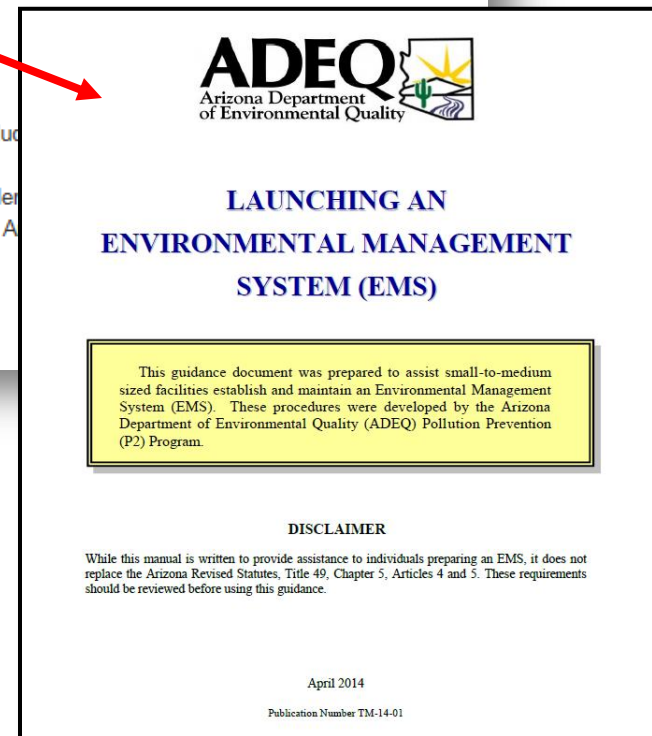
Energy Resources



[Energy Star for small businesses](#) provides information on how to prevent pollution by reducing energy usage. [US Small Business Administration](#) can help estimate your current energy usage. [Arizona Goes Solar's website](#) is an effort by the Arizona Corporate Commission and implements residential and business customers information regarding solar options and incentives in Arizona.

ADEQ EMS Guide

- Prepared to assist small to medium sized facilities
- Launch an internal EMS



LAUNCHING AN ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

This guidance document was prepared to assist small-to-medium sized facilities establish and maintain an Environmental Management System (EMS). These procedures were developed by the Arizona Department of Environmental Quality (ADEQ) Pollution Prevention (P2) Program.

DISCLAIMER

While this manual is written to provide assistance to individuals preparing an EMS, it does not replace the Arizona Revised Statutes, Title 49, Chapter 5, Articles 4 and 5. These requirements should be reviewed before using this guidance.

April 2014

Publication Number TM-14-01

P2 Planning Resources Continued

Water Resources



EPA's [WaterSense® Program](#) provides information and strategies for saving money and water that can help you manage your facility's water use.

Arizona Department of Water Resources Commercial, Industrial and Institutional homepage has more information on [water conservation](#) tools, programs and resources in Arizona.

ADEQ's Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities fact sheet can help you determine if there are specific permitting requirements for your business. The key to compliance with the MSGP is to keep pollutants out of stormwater through the use of proper P2 practices. These practices or control measures are site-specific and based on the nature of the activities and types of pollutants potentially exposed to and transported by stormwater.

ADEQ's [Water Quality Division web site](#) contains further information on obtaining authorization for discharges of stormwater associated with construction activity and information on Stormwater Pollution Prevention Plan (SWPPP).

Air Resources



ADEQ's [air quality website](#) offers information on agricultural best management practices, travel reduction programs and fugitive dust control.

"[Clean Air Make More](#)" is Maricopa County's free downloadable app that provides current air quality conditions, including real-time updates on restrictions such as no burn days. The app offers detailed air pollution statistics on ozone, PM-10, carbon monoxide and PM-2.5 particles, as well as a means to report air quality problems.

Recycling Resources

ADEQ's [recycling webpage](#) provides useful recycling information, including a [recycling locator](#) to find where you can recycle various items in Arizona.

P2 Resources Summaries



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Resource Summaries >

- Designed by interns with P2 staff guidance
- Quick summary fact sheets
- Assist facilities reduce pollution in specific sectors, processes or areas.
- Provide list of links that can help you reduce pollution
- Provide case studies



- Possible through an EPA grant
- 15 week internships (spring and fall semesters)
- ASU students
- Currently three interns
- Duties include P2 resource summaries, Food Recovery Program and Hotel/Lodging Outreach
- Focus is to provide outreach material to reduce toxic substance use and hazardous waste generation
- Facility site visits
 - P2 staff is looking for facilities interested in granting a site visit for upcoming semesters. Contact P2 staff if interested.

Natural
Resource
Conservation

Hazardous
Waste
Generation
Reduction

P2

Resources

Water
Conservation

Energy
Conservation

Toxic
Substance Use
Reduction

Solid Waste
Diversion

Toxic Substance Use Reduction

What can your company do to reduce toxic substance use?

- Chemical reformulations
- Green chemistry
- Substitution of toxic substances for non-toxic or less toxic substances
- Avoid raw material waste through unnecessary excessive use
- Modify processes for more efficient toxic substance use



EPA Safer Choice Program

- **Resources to reduce toxic substance use**
- Facility cleaning supplies
- Degreasers
- HVAC Maintenance
- Athletic field paints



Safer Chemical Ingredient List

- Solvents
- Specialized industrial agents
- Surfactants
- Emollients
- Chelating agents
- Colorants
- polymers

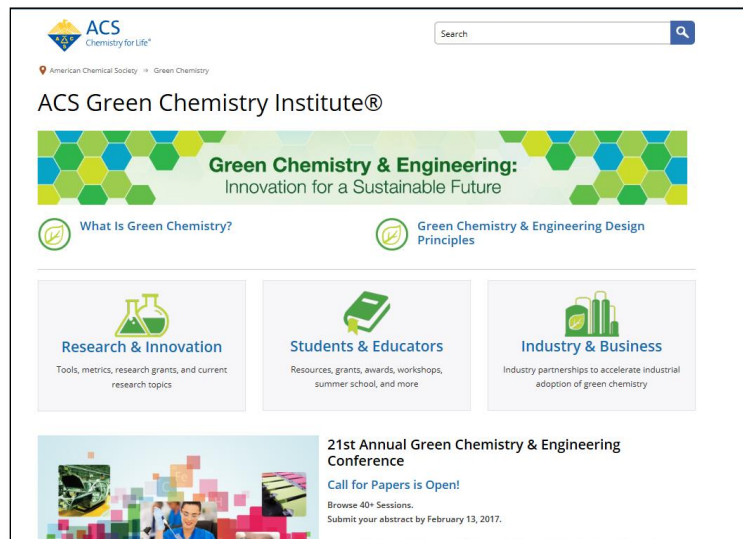


Safer Chemical List

- [Safer Chemical Ingredients List \(SCIL\)](#)
- [How to List on SCIL](#)

Other Resources Continued

American Chemical Society (ACS)



Webinars & Videos

Celebrating 20 Years of the Green Chemistry & Engineering Conference.



<https://www.acs.org/content/acs/en/greenchemistry/students-educators/webinars-videos.html>



<https://www.migreenchemistry.org/toolbox/directory/>



Environmental Topics

Laws & Regulations

About EPA

Se

Green Chemistry

Green chemistry is the design of chemical products and processes that reduce or eliminate the generation of hazardous substances. EPA's efforts to speed the adoption of this revolutionary and diverse discipline have led to significant environmental benefits, innovation and a strengthened economy.

- [Watch our video on the benefits of green chemistry.](#)

Basics of Green Chemistry



• Definition


Presidential Green Chemistry Challenge



• Information about the Presidential Green

<https://www.epa.gov/greenchemistry>

Toxics Release Inventory (TRI) Program P2 Search Tool

 United States Environmental Protection Agency

Environmental Topics Laws & Regulations About EPA

Toxics Release Inventory (TRI) Program

2015 TRI National Analysis Now Available

The TRI National Analysis offers analyses and interactive maps showing data at a state, county, city, and zip code level.

[Browse the 2015 National Analysis](#)

The Power of Comm...

In 1986, Congress passed the Emergency Planning and Community Right-to-Know Act

- 30 Years of TRI
- Recent TRI News
- TRI Website Map

TRI is a resource for learning about toxic chemical releases and pollution prevention activities reported by industrial and federal facilities. TRI data support informed decision-making by communities, government agencies, companies, and others.

About the TRI Program

- [Learn About TRI](#)
- [Basics of TRI Reporting](#)
- [Common TRI Terms Explained](#)
- [TRI 30th Anniversary](#)

TRI Resources


- [2015 TRI National Analysis Report](#)
- [Pollution Prevention \(P2\) Data](#)
- [Tools for TRI Data Analysis](#)
- [TRI for Communities](#)

Annual Reporting For Facilities

- [Reporting Instructions and Guidance](#)
- [TRI Facilities Portal](#)
- [Determine if Your Facility Must Report](#)
- [Electronic Reporting with TRI-MEweb](#)

Find TRI Factsheets for Your Community

Search by: States Metropolitan Areas Watersheds Tribal

 Get email alert



- [2015 TRI National Analysis Report](#)
- [Pollution Prevention \(P2\) Data](#)
- [Tools for TRI Data Analysis](#)
- [TRI for Communities](#)

<https://www.epa.gov/toxics-release-inventory-tri-program>

Hazardous Waste Reduction

What can your company do to reduce hazardous waste ?

- Inventory Control
- Conduct proper waste determinations
- Substitution of non hazardous materials in processes
- Modify processes to reduce waste
- Spill and leak prevention
- Segregate hazardous waste and non hazardous waste properly



Resources

- EPA's basics on hazardous waste including what is a hazardous waste:
<https://www.epa.gov/hw/learn-basics-hazardous-waste>
- Requirements for each hazardous waste generator and classes
<https://www.epa.gov/hwgenerators/hazardous-waste-generator-regulatory-summary>
- EPA's basic hazardous waste basics
- <https://www.epa.gov/hw/learn-basics-hazardous-waste>

What can your company do to reduce solid waste ?

- Solid waste assessment
- Inventory control
- Reduce packaging
- Reuse packaging
- Implement a recycling program
- Reduce food waste



Resources

- **EPA's WasteWise Program** encourages sustainable materials management to reduce select industrial wastes. Join the program, conduct a waste assessment, define scope, set measurable goals. <https://www.epa.gov/smm/wastewise>
- Learn how to reduce, reuse and recycle from EPA <https://www.epa.gov/recycle>
- ADEQ's e-waste recycling toolkit <http://www.azdeq.gov/node/1198>
- Use the recycling locator <http://www.azrecycles.gov/> to figure out what can be recycled and where to recycle different items in your zip code.
- Contact ADEQ's recycling coordinator J.B. Shaw js1@azdeq.gov or 602 771 5613

What can your company do to reduce energy use ?

- Conduct an energy audit
- Replace inefficient lighting
- Use energy efficient electronics
- Check and maintain equipment
- Turn off electrical equipment and lighting when not in use
- Install occupancy sensors/motion sensors and timers



Resources

- Save energy with **EPA's Energy Star** - www.energystar.gov
 - Energy Star Portfolio Manager – Benchmarks
 - Energy efficient products: Appliances, electronics, office equipment building products, heating and cooling (boilers, air conditioning), lighting...
- **Department of Energy** – <https://energy.gov>
 - Compressed Air Systems
 - Manufacturing Success Stories: <https://energy.gov/eere/success-stories/listings/manufacturing-success-stories>

What can your company do to reduce water use ?

- Conduct a water audit/analyze water usage
- Install water efficient nozzles and aerators
- Reuse water in other processes if possible
- Identify and stop drips, leaks and unnecessary flows
- Practice xeriscaping landscaping
- Use motion sensors for low flow faucets and dual flush toilets



Resources

- Save water with **EPA's Water Sense** – www3.epa.gov/watersense/
 - Find water efficient products – Sink faucets, toilets, irrigation controllers, commercial pre-rinse sprays
 - Best management practices for commercial and institutional facilities
- Arizona's Department of Water Resources – ADWR: <http://www.azwater.gov/AzDWR/>
 - Water conservation best management practices
 - Water conservation tools and resources:
<http://www.azwater.gov/AzDWR/StatewidePlanning/Conservation2/>
 - Information on xeriscaping, native plants for Arizona and water efficient landscapes

Metal Fabrication Facility

Electrical Energy Reduction

Action: Facility replaced halogen lights with LED ones.

Results: In 2015 this resulted in 1,938,924 kwh reduced with a cost savings of \$82,500.



Hazardous Waste Reduction

Action: Reclaimed contaminated water based paint by straining out the contaminated portion.

Results: In 2015 this resulted in a reduction of 44,687 pounds of paint with a cost savings of \$61,412.



Chemical Manufacturing Facility

Water Reduction

Action: Reduced the amount of water used in the process by 5%.

Results: In 2015 this resulted in 8,792,000 gallons reduced with a cost savings of \$43,962.



Hazardous Waste and Solid Waste Reduction

Action: Reduce total waste by 10% and incinerated waste by 25% by working with waste vendor to redirect waste.

Results: In 2015 this resulted in a hazardous waste reduction of 282,207 pounds with a cost savings of \$564,413 and 406,304 pounds of solid waste was diverted from the landfill.

Other resources - WSPPN

Western Sustainability Pollution Prevention Network

<http://wsppn.org>



News

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Call for Papers: The 21st Annual Green Chemistry & Engineering Conference

Abstracts are open for submission from January 4, 2017 to



Congratulations to EPA Region 9 winners!

upstream reduce trash sustainable priority haulers community waste planning recycling compost

Charting a Path Towards Zero Waste

EPA releases new tool to help communities plan for less waste: Managing and Transforming Waste Streams



Upcoming Webinars

2017 Webinars

February 7, 2017 - [ADEQ Solid Waste Overview](#)

February 14, 2017 - [ADEQ Hazardous Waste Regulations and Reporting](#)

February 15, 2017 - [ADEQ Hazardous Waste Regulations and Reporting](#)

February 16, 2017 - [ADEQ Hazardous Waste Regulations and Reporting](#)

Green Chemistry 101

Learn the twelve principles of green chemistry taught during The Green Chemistry & Engineering Student Workshop in June 2013 in Washington D.C. This is a virtual training experience in high definition so that you will feel like you are part of the class.

[Learn more](#)

P2 101

WSPPN and the National Pollution Prevention Roundtable (NPPR) partnered to develop an online training in pollution prevention (P2). This nine-lesson virtual training was originally presented at a conference in Sacramento, CA to provide members of business and industry, and environmental technical assistance providers with a foundation in the key principles and strategies for preventing pollution.

[Learn more](#)

Great Lakes Regional Pollution Prevention Roundtable



Peaks to Prairies
Pollution Prevention Information Center

ZERO WASTE
NETWORK

CENTER FOR ENVIRONMENTAL EXCELLENCE



**POLLUTION PREVENTION
REGIONAL INFORMATION CENTER**

NEBRASKA
MISSOURI
KANSAS
IOWA



A.R.S. §49-192

- Identify and reward organizations with a good history of compliance
- Various categories
 - Copper, bronze, silver gold and platinum

Reasons to join

- ADEQ recognition of your organization
- Reduced inspection frequency
- Coordination of multiple onsite inspections
- Advanced notification of inspections and enforcement rulings

Contact:

Ian Bingham,
ADEQ Communications Director and
Ombudsman

Phone: (602) 771-4322

Fax: (602) 771-2251

idb@azdeq.gov



Contact us!
We are here to help!

p2@azdeq.gov

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Thank You