

Toxic Use Reduction

Facilitator Guide

Acknowledgments

The Midwest Consortium developed this course for workers and community members who want to investigate the reduction of use of toxic materials under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences. Member institutions of the Midwest Consortium who worked on the update of the initial program include Green Door Initiative, University of Minnesota and the University of Cincinnati. This program was developed for use by industrial workers and community residents who seek use reduction as one approach to reducing exposures.

See https://mwc.umn.edu for a listing of contacts at each member institution and additional information. We encourage you to comment on these materials.

Warning

The Midwest Consortium has copyrighted this material. A recipient of the material, other than the Federal Government, may not reproduce it without permission of the copyright owner.

The material was prepared for use by facilitators experienced in the training of persons interested in initial approaches to identify uses of toxic materials that may be reduced at a workplace, community or home. Users are cautioned that the subject is constantly evolving. Therefore, the material may require additions, deletions, or modifications to incorporate the effects of that evolution occurring after the date of this material preparation.

All web links are active as of September 5, 2023; if you find an error, please inform the facilitator so that it can be updated.

Disclaimer

This program covers initial approaches to identify uses of toxic materials that may be reduced at a workplace, community or home. Web sites are provided throughout the program that may be useful in reducing use of toxic materials.

For further information about this matter, consult the training instructor, health and safety personnel at your workplace, the Local Emergency Planning Committee (LEPC) for your city or county or your local health department as appropriate.

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Overview

This program covers initial approaches to identify uses of toxic materials that may be reduced at a workplace, community or home. It is designed to allow the participants to complete the program in four hours, excluding breaks. Although the amount of time spent on each section is flexible, please note that material in earlier sections may be needed for successful completion of later program exercises. It is the desire of the Midwest Consortium for Hazardous Waste Worker Training to allow professional instructional freedom yet maintain consistency of training. Therefore, the course outlines must be carefully prepared, so all training objectives are met. Suggestions for handling the introductory and closing portions of the program are provided.

Only one facilitator is necessary for delivering this course. To maximize learning, limit the class size to no more than 25 participants. See the Minimum Criteria (https://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=11266&file_name=WTP_Minimum_Criteria_062818_Final_508.pdf), page 27.

Facilitator Preparation

The Toxic Use Reduction course incorporates a variety of teaching methods to meet varied learning styles. Material presentation with discussion and small group exercises are used. This Facilitator Guide corresponds to the Participant Guide and will give you a guideline for presenting the material as it includes the following types of information: objectives of the course, directions for presentation, exercise directions, and issues that might be raised by the class.

As a facilitator, you should carefully review this Facilitator Guide, the Participant Guide, and the Exercises. Note there are more Exercises available in the Putting TUR into Effect section than time allows, which offers you the flexibility to choose those most

appropriate. You should be familiar with all online resources utilized or noted. Test all web links prior to the session and if any are inoperative please notify your Program Director. For one or more exercise, participants will need to access the internet so arrangements should be made in advance regarding devices and internet access.

Successful completion of the program is defined as 'Attendance'. Ensure that you have a sign in sheet to document attendance for the program file.

Background

How Did Toxic Use Reduction Come About? - The history

Prior to 1978, there were few laws about disposal of unwanted chemicals. Toxic chemicals were often dumped wherever it was convenient without concern for human health or the environment. This practice began to change during the 1970s and 1980s for a few reasons.

- Public awareness was raised about the risks of chemicals and pollution.
 - In the 1970s, the Love Canal drew public attention when 21,000 tons of buried industrial waste was discovered buried beneath a housing project. Environmentalists suggested that the high illness rate of area residents was linked to pollution.
 - In 1984 in Bhopal, India, a methyl isocyanate (MIC) leak caused the death of about 2,000 people. This leak was considered the worst industrial accident to date.
 - In 1989 the EPA released the first reports from the Toxic Release Inventory (TRI), a national survey of industrial chemical releases established under the Community Right-to-Know Act. The data showed a much higher volume of pollutants in the environment than any previous estimates.
- New government regulations were passed.
 - Clean Air Act (1970s) to regulate emissions to the air.
 - Clean Water Act (1970s) to regulate emissions to bodies of water.
 - Resource Conservation and Recovery Act (1976) to regulate waste disposal.
 - Superfund Amendment & Reauthorization Act (1986) to reauthorize money for clean-up, mandate worker safety standards, train workers at waste sites, plan for local emergencies (LEPCs) and for Community Right-to-Know.
- The volume of waste was growing very rapidly.

 At the end of World War II, we generated about one billion pounds of hazardous waste per year. By 1987, the total increased to 22 billion pounds per year.

How many chemicals are in commerce?

The answer depends on how the question is phrased - what is commerce? See responses from advocacy (https://www.ncbi.nlm.nih.gov/books/NBK268889/. An academic view is shown here: https://www.ncbi.nlm.nih.gov/books/NBK268889/.

Bottom line - there are a lot of chemicals. Some have been used for many years with continuing disease (examples may include lead, asbestos).

History of Safer Choice

Early 1990s: Beginning of Design for the Environment

An innovative, non-regulatory initiative to help companies consider human health, environmental and economic effects of chemicals and technologies, as well as product performance, when designing and manufacturing commercial products and processes.

Late 1990s: An Emphasis on Safer Chemicals

DfE expanded its mission and began to focus on two areas: assessing alternatives to Agency priority chemicals, and recognizing companies for making best-in-class products containing safer chemical ingredients.

Mid-2000s: Safer Product Labeling Begins

A certification program based on its Standard for Safer Products and safer chemical criteria.

2015: DfE Safer Product Label Becomes the Safer Choice Label

See https://www.epa.gov/saferchoice/history-safer-choice-and-design-environment for additional details and links.

There may be changing interests among participants over times. For example, the selection of less toxic disinfectants for the surfaces potentially contaminated with the novel coronavirus may be a need of participants. EPA and CDC websites provide reliable information that is reviewed by scientists. This information on these sites is

updated as often as daily. When specific information from these sites is provided to participants, the date of access should be noted. The Participant Guide generally includes links to a home page, not a specific product or number. The Participant Guide includes a note about updates, as shown below:

The internet is used extensively in this program. Information at trusted websites such as the US Environmental Protection Agency is often updated, and specific information shown may change.

The validity of actions considered by participants will be diminished if old or inadequate documentation is used. Always double check before specific information (such as cost, numbers of people exposed, emissions) is shared, to ensure that the most recent data are known to you.

Presentation of Material

Graphics and audiovisuals

Graphics are available and should be used to assist with in-class instruction. Graphics appear in the Participant Guide. Refer to these illustrations when you cover the material.

Photos, charts, slides, posters, short videos and Power Point slides are also useful training tools and may be introduced in the lesson where appropriate. Power Point slides should be limited to those that support lesson presentation. Avoid using one-word slides, slides with term definitions, and slides as lecture outlines. These types of slides are not effective for keeping participants' attention. Effective slides contain questions, color graphics and short lists.

Exercises

Small group exercises are incorporated throughout the TUR course. The purpose of the exercises is to involve participants in clarifying information, identifying options, and applying the skills they learn. Allow enough time for participants to complete each exercise and discuss them afterwards. These facilitator pages will include steps to run the exercises.

Because class exercises enhance the learning process, it is important to make discussions comfortable so that everyone can participate. Assume that every class will have participants with a wide range of communication skills. Some participants will have

no problem in participating in group discussion, while others may have a hard time in front of the group.

Suggestions for handling group exercises and discussions include the following:

- Allow participants to express their values, attitudes, and opinions freely
- Do not judge participants' responses
- Facilitate discussion by paraphrasing and clarifying. It is seldom appropriate for the facilitator to give opinions.
- Avoid putting people on the spot. Instead of asking individuals for answers, have a voluntary group spokesperson present answers to the class.
- Keep the groups focused on the task at hand. Because small-group exercises
 can draw heavily on the participants' personal experience, sometimes one
 person can dominate the group and run away with the discussion. If you see this
 happening, steer the discussion back on track by asking another group for
 reactions.
- Keep the participants alert and interested by encouraging participation. If the groups are not participating or are giving only cursory answers, ask them for more information or background to elicit answers that are more specific.

Suggested Agenda

15 minutes
45 minutes
30 minutes
30 minutes
105 minutes
15 minutes

Note: does not include a 15-minute, non-training time break

Note: File the agenda, lesson plan and any supporting documents (ex: local example used) in the program file.

Lesson plan forms may be helpful when drafting your presentation outline. Examples of lesson plan forms are shown on the following two pages.

Lesson Plan Form 1

Teaching Methods for This Lesson Plan	Audiovisual Requirements
_ Presentation _ Discussion _ Question and answer _ Hands-on simulation _ Team teaching _ Small-group exercises _ Case study _ Other (describe):	_ Training handbook _ Supplemental handbook material _ Web Sites: _ Whiteboard or easel and paper _ Hands-on simulation _ Other (describe):
Reference Materials	Special Space or Facility Requirements
	(List any room size or special facility regulations here, such as set-up areas, equipment storage concerns, etc.)
Suggested Discussion Questions	Suggested Facilitator Preparation

Lesson Plan Form 2

Subject Area or Element	Detail	Reference Number or Citation
Major subject heading or Roman numeral item from outline format.	Detailed breakdown of subject area or element. This area will necessarily occupy more space than the column to the left.	e.g., page number in training notebook, section number of regulation, or audiovisual material.

Introduction

Time requirement: 15 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- Registration Materials (if not collected prior to the course)
- Participant Guides and agenda
- Whiteboard or equivalent; markers
- Sign-in sheets
- Other course resource materials
- Handouts
- Pencils and notepaper

Objectives

During this introduction, participants will:

> Become oriented to the program content

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Ensure that you have registration materials for everyone
- Print evaluation forms, so that they are ready at the end of the program
- Review agenda and modify as needed for the expected needs or interests of participants
- Prepare copies of agenda, if a handout is to be used; otherwise post.

Minimum Content Requirements

- Introductions
- Agenda and objectives

Questions You May Be Asked

1. How can I find out if a chemical or product is bad for me? You can direct participants to websites such as:

EPA Safer Choice – Products https://www.epa.gov/saferchoice/products
EPA Safer Choice – Chemicals https://www.epa.gov/saferchoice/safer-ingredients#scil

Introduce the Safety Data Sheets (HazCom, 29 CFR 1910.1200) and New Jersey Fact Sheets (https://web.doh.state.nj.us/rtkhsfs/indexfs.aspx).

Also note that some questions, like this one, could be placed in the "parking lot" to be covered later.

Chemical terms are so complicated – where can I find information in plain English?

The Safer Choice website does a good job of simplifying by grouping chemicals into categories based on their safety.

Presentation of the Session

Welcome the participants

- Welcome everyone
- Ask participants to sign in
- Complete registration, if needed
- Explain successful completion

Introduce the program and presenters

- The training institution conducting the training
- The Midwest Consortium
- The Facilitator(s) who are present

Describe the session

- Explain why the program was created
- Go through the agenda
- Explain the overall objective
- Describe 'successful completion'
- Show any reference materials
- Explain the Training Center policies (e.g., breaks, emergency alerting, etc.)
- Explain why evaluation is part of training, as part of continuous improvement

Introduce the participants

- Ask the participants to introduce themselves to the class. Have them tell their name, experience with chemicals, where they are from, why they are taking the class, and how they will use the training.
- As appropriate, or to supplement reconnaissance also ask the participants to tell
 what health and safety concerns they have. Responses should be listed where
 all can see. Bring these concerns into the discussion during the program.

Approaches to Reduce the Use of Toxic Materials

Time requirement: 45 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Participant Guides
- Handouts
- Pencils and notepaper
- Internet access and devices for exercise

Objectives

When completed, participants will be better able to:

- Describe the overall objective of Toxic Use Reduction (TUR)
- Describe several specific approaches to TUR
- Link TUR with exposure reduction at work and in the community

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Review the Participant Guide
- Review this section
- Develop familiarity with the Safer Choice website to increase ability to match participant interests to resources.

Obtain some consumer products marked with the Safer Choice logo available locally, or get pictures of the products

- Ensure you have the necessary devices and internet access
- Depending on the interests/knowledge of the group, introduce SDS or TRI as part of the exercise.

Minimum Content Requirements

- Discuss TUR and approaches
- Exercise

Questions You May Be Asked

1. What websites will provide information I can trust about toxic materials?

Direct participants to websites such as:

- EPA Safer Choice Products, https://www.epa.gov/saferchoice/products
- EPA Safer Choice Chemicals, https://www.epa.gov/saferchoice/safer-ingredients#scil
- Safety Data Sheet (for a specific chemical or product in commerce)
- New Jersey Fact Sheet, https://web.doh.state.nj.us/rtkhsfs/indexfs.aspx
- National Institute of Environmental Health Sciences, https://www.niehs.nih.gov/
- National Institute for Occupational Health and Safety, https://www.cdc.gov/niosh/index.htm
- Agency for Toxic Substances and Disease Registry (part of CDC), https://www.atsdr.cdc.gov/substances/index.asp

2. What is the difference between reducing use and exposure?

Reducing use of a material can be achieved by accomplishing the task by alternate means, such as a substitute material. Reducing exposure can be achieved by engineering controls, administrative controls, or PPE.

Presentation of the Session

The session may be presented as follows:

What are Approaches to Reduce Use of Toxic Materials?

Review TUR approaches

Ask: How can you identify toxic materials you may be exposed to? Brainstorm with the class and list responses. Review Safer Choices content in Participant Guide, especially the circle symbols.

Access Safer Choice website

Define 'functional ingredient class'

If participants are workers, focus on DfE.

Ask: What are some ways to reduce exposure to toxic materials? Summarize responses into the two categories listed: alternative products and more efficient practices and technologies. Talk through the 7 steps of the EPA approach listed in the Participant Guide. Note the web resources which provide additional information.

TSCA

Note that TSCA was first passed in 1976 (https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act) and not updated until 2016 during which many changes occurred in the chemical industry. Refer participants to the details about the update.

- Requires evaluation of chemicals before they are sold.
- Requires EPA to create a list of reviewed harmful substances that need precautions and safe work practices by the community as well as industry.
- Requires manufacturers, importers, and distributers of these goods to report on and keep records related to those substances. Some substances have

- additional restrictions, while others are excluded from the requirement due to the nature of their use.
- Requires EPA to review 40 chemicals. The Agency divided the list into two
 groups: high and low priority. In April 2020, EPA announced the availability of
 the draft scope documents for risk evaluations to be conducted for 13 of 20
 high-priority chemicals, see <a href="https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/chemicals-undergoing-risk-evaluation-undergoing-risk-evaluation-under-tsca/chemicals-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-undergoing-risk-evaluation-under

As EPA has the jurisdiction for enforcement of TSCA, the phrasing showing that industry is regulated, not the workplace, where OSHA has jurisdiction.

Exercise – Identifying a Hazardous Material to Reduce

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Internet access

Procedure: Direct participants to the website and guide as needed. Have them work in small groups.

Have participants select a representative from each group to report to the entire class (if time allows).

Ask: What does the term Green mean? Draw attention to Green resources found in the Participant Guide.

Introduce the Pollution Prevention (P2) activities shown on the EPA hierarchy displayed in the Participant Guide.

Ask: Why is disposal the least preferable approach?

How Toxic Use Reduction Can Protect Worker Health, Community Health and the Environment

Discuss sources of toxic waste and issues with TUR. See Participant Guide content.

Distinguish between OSHA and EPA

Ask: what is an EPA reportable quantity? How can this be used by you?

Summary

Review objectives:

- Describe the overall objective of Toxic Use Reduction (TUR)
- > Describe several specific approaches to TUR
- ➤ Link TUR with exposure reduction at work and in the community

Review EPA Safer Choices and EPA Hierarchy.

Turn to last three paragraphs in 'How TUR Can Protect...' and underscore that there are benefits to everyone.

Ask: Are there questions?

Health and Safety

Time requirement: 30 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Participant Guides
- Handouts
- Pencils and notepaper

Objectives

When completed, participants will be better able to:

- Identify how you would be alerted to a chemical release
- Compare approaches to reduction of use or exposure control
- ➤ Identify an approach to reduce the use of a toxic material

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Ensure knowledge of local (community or industry) alerting procedures
- Review Participant Guide
- · Review this section

Minimum Content Requirements

- Discuss options to control exposures
- Discuss examples of controls for specific hazards
- Exercise

Questions You May Be Asked

1. What agency is responsible to make sure workers are safe?

OSHA - be ready to review the OSHAct

2. What agency is responsible to ensure emissions from industry to not pollute community air and water?

EPA - when over the fence line or into water EPA is involved

Presentation of the Session

This session can be presented as follows:

Emergency Response

Ask: How is emergency response organized at your workplace or in your community?

Ask: What is the alert procedure at your work? Have you been trained about what to do?

Ask: Do you know how alerts are made in your community?

Ask: Do you know what to do?

Hazard Control

Introduce the NIOSH Hierarchy of Controls figure found in the Participant Guide. Discuss the different control options.

Ask: How does this relate to the EPA hierarchy?

Review the two examples: childhood poisoning, electrical hazard,

Exercise - Evaluating Hazard Controls

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Participant Guide

Procedure: Guide the participants through the exercise as needed. Have them work in small groups. Have participants select a representative from each group to report to the entire class (if time allows). Answers are found below.

Limit the hours of operation – Administrative Control; low (may reduce exposures)

Improve the ventilation to get the chemical out of the shop – Engineering Control; medium (but nearby residents might be impacted)

Worker training to evacuate when odors are 'strong' – Administrative Control; low

Close the shop – Elimination; high (but not good for business)

Implement pickup/delivery service for all cleaning – This Eliminates the hazard for customers but doesn't change anything for employees

Investigate using new chemical/process – Substitution; high

Employee weight loss program – Not a control

Put fan by pickup station blowing air to back of shop – Engineering Control; low

Summary - Health and Safety

Review objectives:

- > Identify how you would be alerted to a chemical release
- > Compare approaches to reduction of use or exposure control
- > Identify an approach to reduce the use of a toxic material

Review the Hierarchy of Controls

Ask: Are there any questions?

TUR Benefits, Examples, Costs

Time requirement: 30 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- · Whiteboard or equivalent; markers
- Participant Guides
- Handouts
- Pencils and notepaper

Objectives

When completed, participants will be better able to:

- Describe benefits of TUR
- Review a TUR 'success'
- > Identify some costs for an example of TUR

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Review Participant Guide
- Review this section

Minimum Content Requirements

- Discuss benefits, costs, and examples of TUR
- Exercise

Questions You May Be Asked

How can we get industry to pay for TUR?

The next section will address how to involve all stakeholders, including employers, in the process of TUR.

Presentation of the Session

This session can be presented as follows:

Ask: What are the benefits of TUR?

List responses and then direct participants to those provided in the Participant Guide to fill in gaps and review examples.

Toxic Use Reduction in Practice

Access the website and walk through one of the examples of TUR most appropriate for the participant interests found in the Participant Guide.

TUR Benefits, Examples, Costs

Exercise - Discussing Costs

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Participant Guide

Procedure: Guide the participants through the exercise as needed. Have them work in small groups. Select an example of TUR and discuss the items listed in the exercise. Have participants select a representative from each group to report to the entire class (if time allows).

Summary - TUR Benefits, Examples, Costs

Review objectives.

- Describe benefits of TUR
- Review a TUR 'success'
- Identify some costs for an example of TUR

Ask: Are there any questions?

Putting a TUR Process into Effect

Time requirement: 105 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Participant Guides
- Handouts
- Pencils and notepaper

Objectives

When completed, participants will be better able to:

- Describe why stakeholder input is so valuable in reducing toxics
- Discuss considerations in developing a TUR process
- Describe how to present ideas to others

Teaching Methods

Discussion

Small group activities

Suggested Facilitator Preparation

- Review Participant Guide
- Review this section
- There are more Exercises in this section than time allows; select those most appropriate for the class.
- If using the Exercise Does this Management-based Reduction Strategy Benefit Workers or the Community? consider creating an alternate, more relevant scenario.
- https://www.epa.gov/saferchoice/find-safer-choices-use-your-community#community shows a map of a representative community; it could be used to identify exposures for maintenance tasks, cleaning personnel, residents, etc.

Minimum Content Requirements

- Discuss stakeholders relative to the operations of interest to participants
- · Identify risks to stakeholders
- Describe the TUR process
- Selected Exercises

Questions You May Be Asked

1. Can I really make a difference in TUR?

Discuss what is do-able, vs major changes. Every reduction in use of a toxic material has benefit. Some may be personal (walk instead of drive, use care to ensure all seals are tightened to reduce emissions), a group effort (the neighbors share a push lawn mower, a work practice is improved to reduce the number of material transfers during which a loss can occur)) or larger (the town council has voted to enforce anti-idling

Putting a TUR Process into Effect

regulations, the work practice your group devised for material transfer is adopted at other facilities).

2. Are substitutes safer?

Not always, or perhaps in a different way. A classic example to share is replacement of trichloroethylene with perchloroethylene in dry cleaning. Perc was less of a fire hazard (which is good) but has high toxicity (not so good). Currently, concern is raised about substitutes for PFAS (http://pulse.ncpolicywatch.org/2020/03/10/fda-says-chemical-replacements-for-pfoa-pfos-more-toxic-than-thought/) and BPA (https://ntp.niehs.nih.gov/whatwestudy/topics/bpa/index.html?utm_source=direct&utm_medium=prod&utm_campaign=ntpgolinks&utm_term=bpa). Often there is not a yes/no answer.

Presentation of the Session

This session can be presented as follows:

Ask: Who are the stakeholders in TUR?

Discuss the role of workers in TUR, using content in Participant Guide.

List other stakeholders.

Exercise - Does this Management-based Reduction Strategy Benefit Workers or the Community?

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Participant Guide

Procedure: Note - in lieu of using the scenario provided in the Participant Guide, you can create a substitute in advance or use one based on participant interests/needs.

Guide the participants through the exercise as needed. Have them work in small groups.

Have participants select a representative from each group to report to the entire class (if time allows).

How to Develop Ideas for Toxic Use Reduction

Ask: How would you start to bring stakeholders into the discussion for development of a plan?

Hazard Assessment

Ask: What other stakeholders are affected?

Ask: For each, how does exposure occur?

Ask: How would you find out about health or environmental effects?

Walk through the steps listed in the Participant Guide:

- How are workers being exposed?
- How are others being exposed?
- What are the exposures?
- What are the hazards of these chemicals?

Exercise - Map the Exposure Zone

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Participant Guide

Procedure: Guide the participants through the exercise as needed. Have them work in small groups.

Have participants select a representative from each group to report to the entire class (if time allows).

Assessing Toxic Use Reduction Techniques

Ask: What are some ways to reduce the use of toxic materials? Review the list provided in the Participant Guide.

Exercise - Brainstorming About How to Reduce Toxics

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Participant Guide

Procedure: Guide the participants through the exercise as needed. Have them work in small groups.

Have participants select a representative from each group to report to the entire class.

Evaluating Options

Present the two questions to ask when considering options:

Will this action reduce use?

What are the benefits?

Exercise - Narrowing the List of Options

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: Notes from previous discussions

Procedure: Participants will brainstorm in in small groups.

Have participants select a representative from each group to report to the entire class (if time allows).

Considering All Stakeholder Perspectives

Ask: What concerns might various stakeholders listed previously have with TUR? List responses then review those provided in the Participant Guide.

Putting a TUR Process into Effect

Exercise - Presenting Your Ideas to Others

Number of Facilitators Required: 1

Time Requirement: approximately 15 minutes (10 for exercise and 5 for report-back)

Materials: List from brainstorming

Procedure: Participants will discuss.

Have participants select a representative from each group to report to the entire class (if time allows).

Summary - Putting a TUR Process into Effect

Review objectives:

Describe why stakeholder input is so valuable in reducing toxics

Discuss considerations in developing a TUR process

Describe how to present ideas to others

Ask: Do you feel more prepared to develop and present a TUR plan?

Ask: Are there any questions?

Closing and Program Evaluation

Time requirement: 15 Minutes

Number of facilitators: 1 or more, per ratio shown in Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Evaluation Forms
- Certificates

Objectives

- Answer any remaining questions
- Complete evaluation forms
- > Thank participants

Teaching Methods

Discussion

Suggested Facilitator Preparation

- Print evaluation forms
- Provide a collection box/location for forms

Minimum Content Requirements

- Summarize program content
- Answer remaining questions
- Collect evaluation feedback in a central location

Questions You May Be Asked

How do I get more training?

Refer the participant to your program director or coordinator for other programs offered.

Presentation of the Session

This session can be presented as follows:

Review objectives

Participants should be better able to:

- Describe the overall objective of Toxic Use Reduction (TUR)
- Describe several specific approaches to TUR
- ➤ Link TUR with exposure reduction at work and in the community
- Identify how you would be alerted to a chemical release
- Compare approaches to reduction of use or exposure control
- Identify an approach to reduce the use of a toxic material
- Describe benefits of TUR
- Review a TUR 'success'
- Identify some costs for an example of TUR
- Describe why stakeholder input is so valuable in reducing toxics

Closing and Program Evaluation

- > Discuss considerations in developing a TUR process
- > Describe how to present ideas to others
- > Describe how evaluation is used to improve programs
- ➤ Distribute forms; ask participants to place them in a collection box to maintain confidentiality/privacy

Describe how evaluation is used to improve programs.

Distribute evaluation forms and ask participants to put them in a collection box when complete.