



# TUR Reporting: Providing Accurate Progress Reports

Presented by:

Heather Tenney – Rich Bizzozero

April 14, 2010

# Session Overview

➤ Proper reporting of production ratios



➤ Accurate progress reporting through section 4 data

# Production Ratio

- A ratio of reporting year production to the prior year production
- An “activity index” other than production that is the primary influence on the individual chemical use or byproduct generated may be used
- Ratio reported to nearest 0.1 or 0.01
- Example: report 1.09 for a 9% increase in production
- Report N/A for the initial reporting year
- The ratio may vary for each individual chemical

# Manufacturing Activity

- Production ratio =1?  
*was production equal to the previous year?*
- Production ratio =0?  
*was the chemical not used this reporting year?*
- Production ratio =N/A?  
*is this the first year the chemical is reported?*
- Production ratio >1?  
*did production go up this reporting year?*

# Manufacturing Activity

- Production ratio  $< 1$ ?  
*did production go down this reporting year?*
- Production ratio  $> 10$ ?  
*has production increased 10 fold?*
- Production ratio  $< 0.2$ ?  
*is production less than 20% of the previous reporting year?*

# Production Ratio

- Most cases - must be based on some variable other than the reportable chemical usage – Why?
- Ratios based on reportable chemical use may reflect the effects of source reduction (TUR)
- Examples: pounds of ethylene glycol used to manufacture water-based paint vs gallons of water based paint manufactured containing ethylene glycol
- Reportable chemical usage is not an appropriate activity index for “otherwise used” category of use

# Example

- Facility reports 170,000 pounds of silver in 2009
- Facility reported 200,000 pounds of silver in 2008
- Company does not report any TUR implemented
- Production ratio is 1.15

Question: Is this good progress reporting?

# Example

- Facility reports 40,000 pounds phenol in 2009
- Facility reported 50,000 pounds phenol in 2008
- Company does not report any TUR implemented
- Production ratio = .95

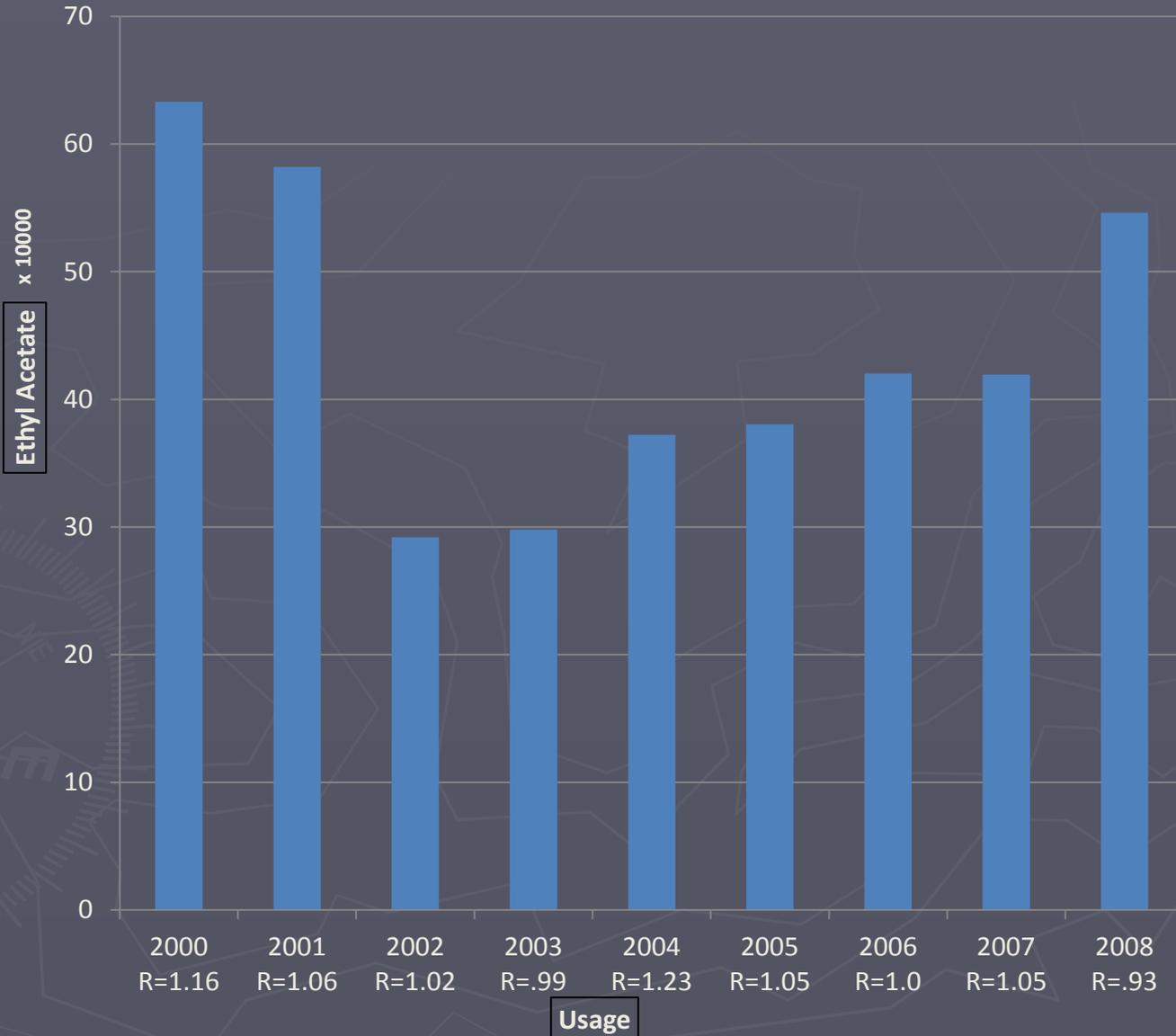
Question: Is this accurate progress reporting?

# Example

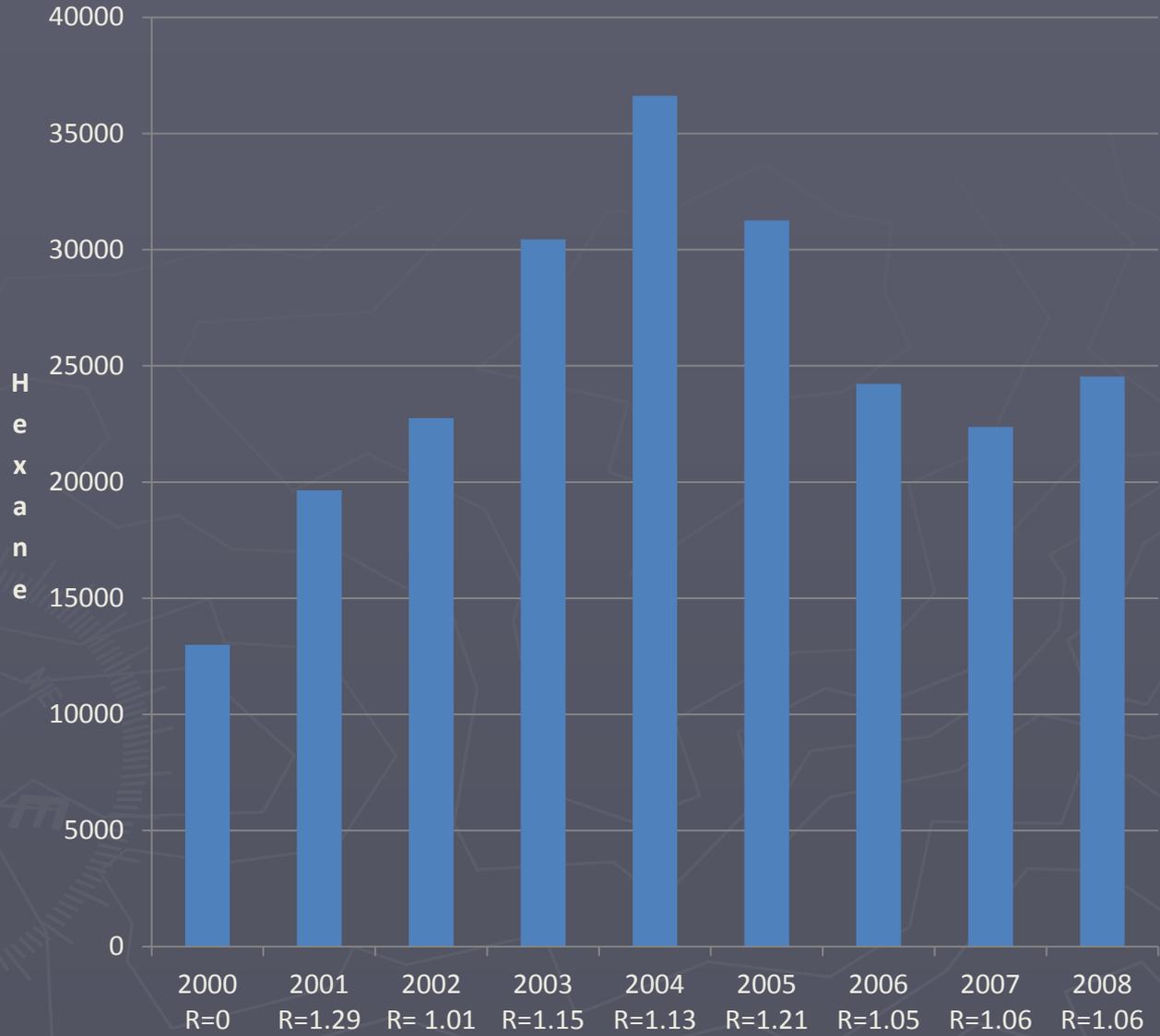
- Facility reports 23,000 pounds of chromic acid and 74,000 pounds of nickel in 2009
- Facility reported 10,000 pounds of chromic acid and 50,000 pounds of nickel in 2008
- Production ratio is 1.24 for both chemicals
- Company does not report any TUR implemented

Question: Is this good progress reporting?

# Coating Company

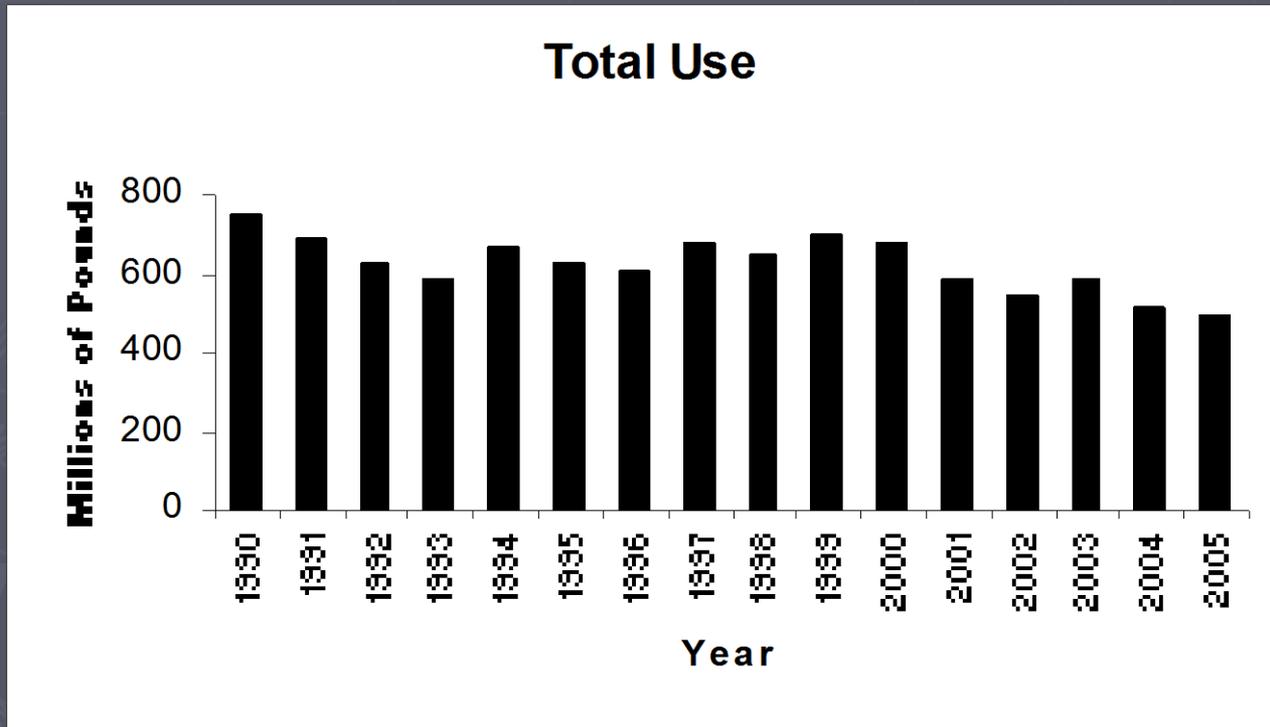


# Device Manufacturer



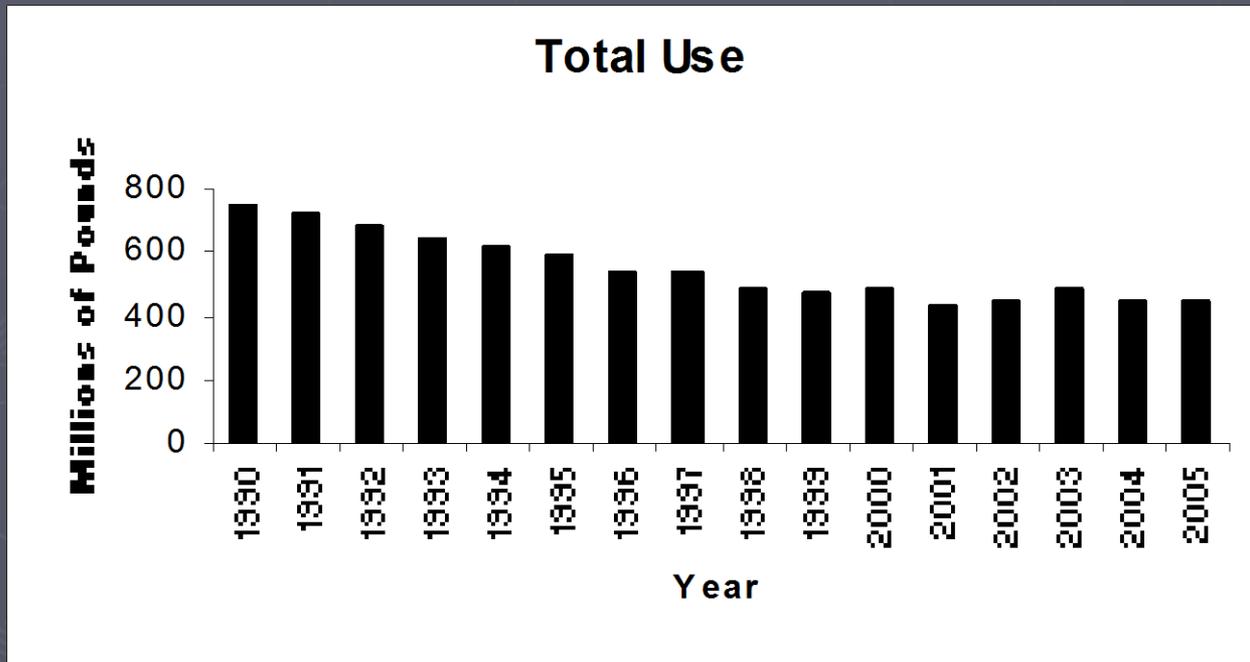
# Production Adjustment

## ➤ 1990-2005 Use as Reported



# Production Adjustment

## ➤ 1990-2005 Production Adjusted Use



# Section 4 Progress Reporting: Techniques Code Matrix

| Description of Technique           | Technique Code |
|------------------------------------|----------------|
| <b>TUR Techniques</b>              |                |
| Input substitution                 | 10             |
| Product reformulation              | 20             |
| Production unit redesign           | 30             |
| Production unit modernization      | 40             |
| Improved operation and maintenance | 50             |
| Integral recycling/reuse           | 60             |

# Techniques Code Matrix Con't

| Description of Technique                  | Technique Code |
|---|----------------|
| <b>Waste Minimization</b>                 |                |
| Byproduct sold in commerce as product     | 63             |
| Byproduct used in on-site waste treatment | 64             |
| Byproduct reused in manufacturing         | 65             |
| Non-integral on-site recycling            | 66             |
| Off-site recycling                        | 67             |

| Description of Technique  | Technique Code |
|---|----------------|
| <b>Other Activities</b>   |                |
| Production increased  | 68             |
| Production decreased  | 69             |
| Reporting threshold was lowered   | 70             |
| Change in definition of byproduct otherwise used  | 71             |
| Production/process step outsourced  | 72             |
| Chemical replaced a more toxic chemical   | 73             |
| Chemical required by customer/spec  | 74             |
| Returned to using toxic chemical because safer alternative did not meet technical requirement | 75             |
| Returned to using toxic chemical because safer alternative did not meet customer preference   | 76             |
| Byproduct increase because of cleanup, decommissioning or spill                               | 77             |
| Improved operation of waste treatment unit  | 78             |
| Increase due to installation of pollution control device                                      | 79             |
| Other   | 80             |

# Section 4 Progress Reporting

| Process code(s) where most significant changes occurred<br>(up to three in descending order) | Type of Change<br>(Enter "I" for Increase,<br>"D" for Decrease) | Technique Code(s)<br>(up to three per process code) |           |     |
|--|---|---|-----------|-----|
| i.1. <b>GG - 01</b>  | <b>I</b>  | <b>10</b>   | <b>50</b> | 3c. |
| j.1.   | 2.  | 3a.   | 3b.       | 3c. |
| k.1.   | 2.  | 3a.   | 3b.       | 3c. |

# Example

- Facility reports 40,000 pounds phenol in 2009
  - Facility reported 50,000 pounds phenol in 2008
  - Company does not report any TUR implemented
  - Production ratio = .95
  - Company reports Technique Code of 74
- Question: Is this accurate progress reporting?

# Example

- Facility reports 170,000 pounds of silver in 2009
- Facility reported 200,000 pounds of silver in 2008
- Company does not report any TUR implemented
- Production ratio is 1.15
- Technique codes 68, 69, and 66 are reported

Question: Is this good progress reporting?

## 2007 TURA Implemented Chemical Use Decreases TUR Techniques



## 2007 ByProduct Decreases TUR Technique



**2007 Use Reduction by Industry Sector  
Improved Operation & Maint**

