

# Why Toxic Use Reduction (TUR) Matters to the Bottom Line

Insurance, Liability, and Cost-of-Risk Impacts  
for Manufacturing Businesses

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# Today's Questions

- › What is a TUR plan in practical business terms?
- › Why does it matter to insurers and risk managers?
- › How does it affect a manufacturer's cost of risk?
- › What do real-world New England case studies show?
- › Why should you care?

# What is Toxic Use Reduction?

**A TUR plan is a structured effort to reduce risk by:**

- › Eliminating hazardous substances where possible
- › Substituting safer materials
- › Redesigning processes to reduce exposure and releases
- › Reducing reliance on downstream controls alone

## **Key Distinction:**

TUR is about reducing hazard at the source — not just managing dangerous materials more carefully after the fact.



# Why This Matters Financially

A serious toxic-material loss rarely creates just one cost. It creates stacked costs:

- › Operating costs
- › Insurance claim costs
- › Regulatory costs
- › Legal / liability costs
- › Uninsured business interruption and friction costs

## Bottom-Line Truth:

A toxic loss is almost always more expensive than the chemical itself.



# How Underwriters View TUR

Underwriters are asking one core question:

**Has the company actually reduced hazardous loss potential — or are they simply controlling it better?**

## Why This Matters:

- › Source reduction improves account quality
- › Control-only strategies improve safety, but may not materially improve **insurability**



## Insurance Lines Most Affected by TUR

A strong TUR plan can materially affect:

- › Workers' Compensation
- › General Liability
- › Pollution / Environmental Liability
- › Commercial Property
- › Products Liability
- › Umbrella / Excess Liability

# 1. Workers' Compensation

## TUR Can Reduce:

- › Inhalation exposure
- › Skin absorption
- › Burns / splash injuries
- › Sensitization / respiratory illness
- › Long-tail occupational disease claims

## Insurance Relevance:

- › Lower claim frequency
- › Lower claim severity
- › Better long-term mod trajectory
- › Better schedule-rating potential

## 2. General Liability

### TUR Helps Reduce:

- › Chemical drift
- › Odors / nuisance conditions
- › Spill-related third-party damage
- › Visitor / contractor exposure
- › Contamination of neighboring property

### Insurance Relevance:

- › Better premises liability profile
- › Reduced toxic tort potential
- › Improved legal defensibility

## 3. Environmental Liability

### TUR Can Reduce:

- › Sudden spills
- › Gradual contamination
- › Hazardous waste generation
- › Groundwater / soil migration risk
- › Cleanup obligations

### Insurance Relevance:

- › Better pollution underwriting
- › Improved retention / pricing opportunities
- › Lower severity environmental loss potential

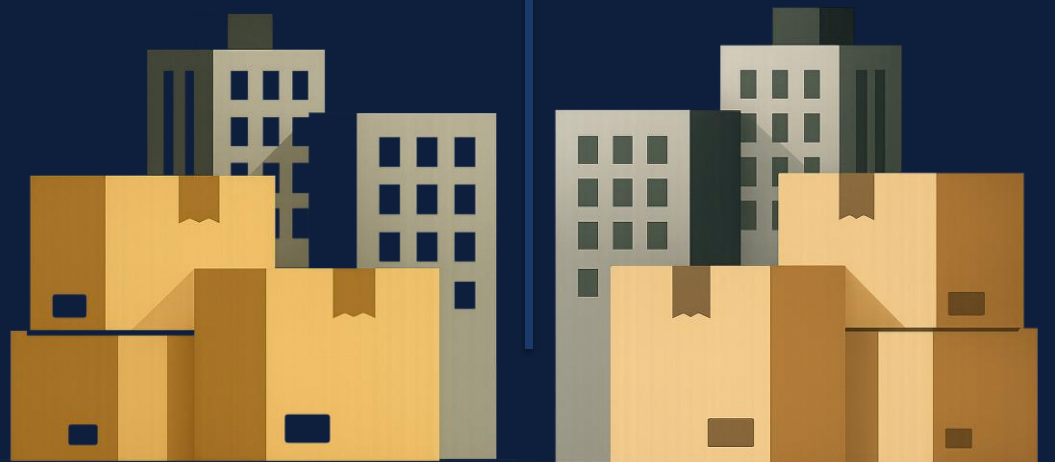
## 4. Property, Products, and Excess

### TUR May Also Reduce:

- › Flammability and explosion potential
- › Corrosive damage to property and equipment
- › Contamination of finished products
- › Catastrophic toxic release severity

### Insurance Relevance:

- › Better engineering / property profile
- › Lower products liability concern
- › Better excess market comfort



# What a Strong TUR Program Looks Like

A meaningful TUR plan usually includes:

- › Full chemical inventory and hazard ranking
- › Evaluation of substitution opportunities
- › Process redesign where feasible
- › Reduced toxic throughput over time
- › Lower hazardous waste generation
- › Better procurement controls
- › Measurable trend data

## Key Point:

**Good TUR is documented, measurable, and operational — not just policy language.**



## WHAT THEY DID

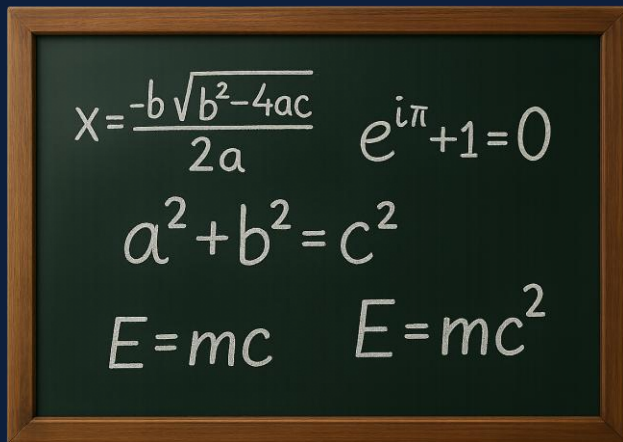
- › Reformulated a coating to eliminate a reportable toxic chemical

## RESULTS

- › Reduced VOC emissions by 4–6 tons annually
- › Eliminated reporting obligations for that chemical under certain programs

## INSURANCE SIGNIFICANCE

- › Lower emissions-related exposure
- › Lower chronic worker exposure concern
  - › Reduced toxic throughput
  - › Better environmental and liability profile



## Textile Plant | MA

### WHAT THEY DID

- › Replaced sulfuric acid in wastewater pH treatment with injected liquid CO<sub>2</sub>



### RESULTS

- › Eliminated annual use of 2.66 million lbs of sulfuric acid
- › \$115,000 project cost
- › Approx. \$80,000 annual savings
- › Payback in less than 1.5 years

### INSURANCE SIGNIFICANCE

- › Reduced corrosive spill severity
- › Reduced worker burn exposure
- › Reduced emergency response burden
- › Reduced environmental release severity

## What Happens Without Strong TUR | Everyday-Use Chemical Manufacturer— MA

### INCIDENT

EPA reported a 7,000-gallon methanol spill

### EPA-REPORTED CONSEQUENCES

- › \$197,075 in penalties
- › Approx. \$173,400 in compliance work costs

### LIKELY BROADER LOSS IMPACT

- › Spill response / cleanup
- › Downtime
- › Underwriting pressure
- › Possible insurance restrictions
- › Potential liability exposure



EPA: Safety deficiencies included, among others: lack of spill containment, failure to ground and bond methanol equipment, lack of emergency relief venting for storage tanks, inadequate fire suppression, inadequate employee training and protective equipment, and lack of an emergency Response Plan response plan.

## What the Real-World Data Shows

### Companies WITH Meaningful TUR Tend to Reduce:

- › Toxic throughput
- › Employee exposure
- › Hazardous waste
- › Emissions
- › Spill severity
- › Compliance complexity

### Companies WITHOUT Strong TUR Are More Likely to Incur:

- › Regulatory penalties
- › Emergency response costs
- › Injury exposure
- › Environmental liability
- › Difficult insurance renewals

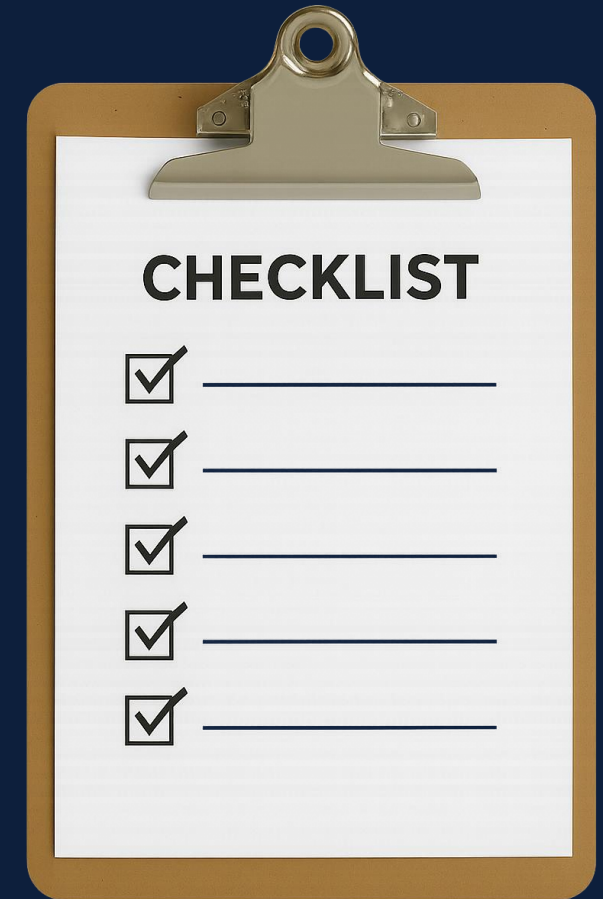
# The Insurance Bottom Line

A proper TUR plan can improve a manufacturer's bottom line by helping reduce:

- › Claim frequency
- › Claim severity
- › Regulatory burden
- › Environmental exposure
- › Underwriting friction
- › Uninsured business interruption
- › Long-tail liability risk

## Put Simply:

**TUR can help make a company more insurable, more defensible, and less expensive to own or operate after a loss.**



# To Conclude

## TUR is NOT just:

- › Environmental compliance
- › A reporting obligation
- › A sustainability talking point

## TUR IS:

### A Financial Risk Management Strategy

A strong TUR plan can directly influence:

- › Insurance costs
- › Loss potential
- › Liability exposure
- › Operational resilience
- › Enterprise value

# Takeaway

*"If you're evaluating a manufacturing operation — as a broker, consultant, underwriter, investor, or buyer — one of the most useful questions you can ask is: 'How much of this company's chemical risk has actually been reduced at the source?'"*

**Because that answer often tells you a lot about what the balance sheet may eventually be asked to absorb.**

