



**Department of  
Environmental  
Conservation**

# **HWRP & RCRA Updates Webinar**

**Hazardous Waste Reduction Planning (HWRP) Refresher and  
Resource Conservation and Recovery Act (RCRA) Rule Changes**

**May 13, 2020**

# Agenda

## HWRP

- Program Refresher
- Recent program updates
- Resources

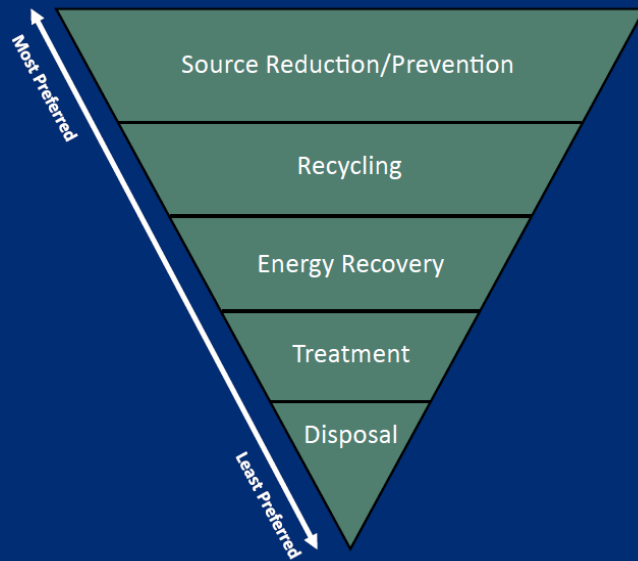
## RCRA

- Fed Reg 5 – Recent revisions to the hazardous waste regulations affecting LQGs
  - Changes from state initiatives
  - Changes from federal rules
- RCRA Fed Reg 6 – revisions being considered
  - Revisions that promote recycling
  - Other revisions that affect LQGs



# Hazardous Waste Reduction Planning

- Established under Article 27, Section 0908 of the Environmental Conservation Law (ECL 27-0908)
- Applicable to generators  $\geq 25$  TPY or TSDFs
- Intent of program:
  - To reduce volume and toxicity of HW through reduction planning
  - Promote waste management hierarchy



# Program Requirements

- Develop, implement and submit a written HWRP by July 1
- Submit Annual Status Report (ASR) one year following submittal of HWRP, by July 1
- Submit Biennial Update (BU) one year after ASR, by July 1



# For HWRP, ASR, and BU

Which waste streams to include (throughout report/tables):

- At least 90% of HW generated\*

*\*this includes hazardous wastewaters*

OR

- Waste streams  $\geq 5$  TPY

*(Whichever represents greater amount)*

AND

- All acute hazardous waste streams



# For HWRP, ASR, and BU – Table 1

COMPANY NAME  
Chemical Corp.

EPA ID. NUMBER  
NYD008675309

TABLE 1

WASTE STREAM ID NUMBER	NAME OF WASTE	EPA HAZARDOUS WASTE CODE(S)*	SOURCE OF GENERATION	DISPOSAL MANAGEMENT METHOD CODE**	QUANTITY OF WASTE GENERATED (TONS)				PRODUCTIVITY INDEX BASE INDEX = 1 (YEAR HWRP FIRST SUBMITTED)			
					2012	2013	2014	2015	2012	2013	2014	2015
WS-1	Spent Solvent	D001, D004	Equipment Cleaning	H040			100	105			1.0	0.9

- Name of Waste, Waste ID Codes
- Source of Waste, Management Method
- Qty. of HW Generated (Tons)
- Productivity Index

# For HWRP, ASR, and BU

## Tips for Table 1

- Include EPA Waste and Disposal/Management Method codes
- Provide waste generation in tons
- Base year Productivity Index = 1
- In following submittals, should be based on "production" in current year compared to base year (i.e., the first year you submitted):

$$PI (2019) = \textit{Production 2019} \div \textit{Production Base Year}$$

Production or some other measure of productivity

Please include a sample calculation in your submittal

$$\textbf{Example: } PI (2019) = 50,000 \textit{ selfie sticks} \div 48,000 \textit{ selfie sticks} = 1.04$$

# For HWRP, ASR, and BU – Table 2

COMPANY NAME Chemical Corp.	EPA I.D. NUMBER NYD008675309
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TABLE 2

WASTE STREAM ID NUMBER	NAME OF WASTE	WASTE STREAM AFFECTED	REDUCTION PLANS/PROJECTS	ESTIMATED WASTE REDUCTION (TONS)	METHOD USED TO CALCULATE *ROI	*ROI (EST)	GOAL DATE	REMARKS
WS-1	Spent Solvent	Cleaning Wastes	Switch to steam cleaning	50	PP	6 mo.	Q1 2020	Reduce solvent use

- Name of Waste, Reduction Plans/Projects
- Estimated Waste Reduction (tons)
- Return on Investment
- Goal Date for Implementation



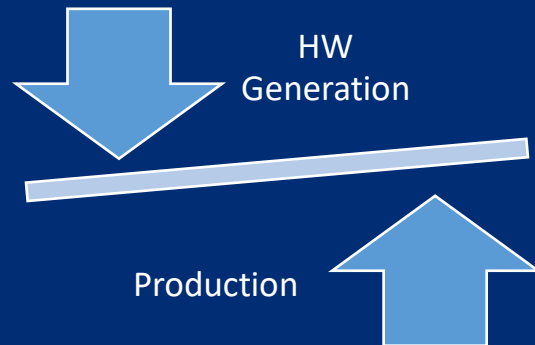


# For HWRP, ASR, and BU

## Tips for Table 2

- Provide brief description of each ***Reduction Plan/Project***
- ***Estimated Waste Reduction*** based on knowledge of waste stream or formal calculation
- ***Return on Investment (ROI)*** – Several different methods available
- ***Goal Date*** – Date by which reduction plan will be implemented
- ***Remarks*** – Provide additional details on any of the previous columns

# For ASRs



- Update Table 1 and Table 2
- Describe progress in achieving time schedule for implementation laid out in HWRP (or prior year's BU)
- If not implemented as planned, provide reason
- If reduction alternative is not achieving reductions, another alternative may be selected (briefly describe action in ASR, more detailed account in BU)

# For ASRs

## Common Omissions

- Waste generation quantity discrepancies – the numbers in Table 1 must match the numbers in your Annual Hazardous Waste Report;
- If implementation schedule changed, provide reason, update Table 2
- Include estimated waste reductions or goal dates in Table 2



# For BUs

- Describe waste generation and reduction plan changes since HWRP or previous BU
- Update Table 1 – be sure to include new acute waste streams, streams over 5 TPY or streams newly included in 90%
  - If new streams, plan should also include:
    - Narrative description of source of generation, method of disposal;
    - Productivity index (and sample calculation);
    - Evaluation of implementing reductions (incorporate this into Table 2)
- Update waste management cost estimates
- Update Table 2 – note any completed or re-evaluated existing plans; provide updated schedules as necessary
- Provide updates to training program, corporate goals, resources (if any)



# For BUs

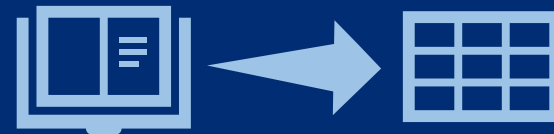
## Re-evaluate Waste Reduction Alternatives

- Substitution of non-toxic/less toxic inputs
- Reformulation or re-design of end products (i.e., product re-design)
- Modification or re-design of production processes or equipment (e.g., increased efficiency)
- Changes in usage, storage, and handling (e.g., inventory control)
- Closed-loop reclamation, re-use, and recycling (i.e., recycle waste back into process)
- On-site/off-site recycling to reduce amount to be treated/disposed (e.g., off-site reclaim)

Waste Stream	Material Substitution	Product Re-design	Process Modification	Storage and Handling	Closed-loop reclaim	On-site/Off-site Recycle
WS-1	<b>Feasible</b>	Won't meet spec	<b>Feasible</b>	<b>Feasible</b>	Attempted (Ineffective)	Not Available
WS-2	ROI > 5 years	Won't meet spec	<b>Feasible</b>	ROI > 5 Years	<b>Feasible</b>	<b>Feasible</b>

# For BUs

## Re-evaluation of Alternatives (Cont.)



Add waste reduction alternatives that are selected (feasible/practicable) into Table 2, along with:

- Estimated waste reduction (in tons)
- Schedule for implementation
  - If multi-step implementation – give schedule for next step
- Return on Investment (ROI);
  - Various methods – Payback period, annualized costs, increased rate of return

# For BUs

## Common Omissions

- Waste generation quantity discrepancies – the numbers in Table 1 must match the numbers in your Annual Hazardous Waste Report
- If new waste streams – need full details similar to HWRP write-up
- Update costs for waste management
- Estimated waste reductions and goal dates needed in Table 2
- If no evidence of re-evaluation of waste reduction alternatives in past submittals, this needs to be done in the BU (Required every other year!)

Text from a DEC  
comment letter:

fully comply with the HWRP requirements, please ensure that your future HWRP submittals address the following items:

- There is a discrepancy between the hazardous wastewater generation quantities reported on Table 1 of the BU and the quantity reported in the Annual Hazardous Waste Report form. Please either correct this discrepancy, or provide justification; and
- The BU needs to include updated estimates of the costs incurred for the management of hazardous wastes

Failure to address these items in your next HWRP submittal could result in the department rejecting your submittal for not complying with the requirements of Article 27, Section 2008 of the Environmental Conservation Law.

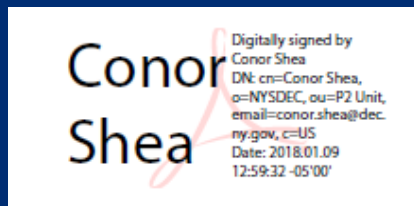


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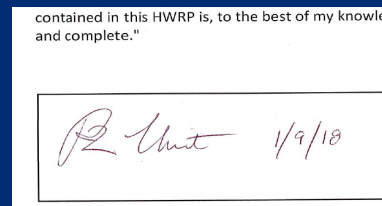
# Recent Changes (HWRPs, ASRs, and BUs)

- Fillable PDF forms available on our website (with built-in Excel Tables 1 and 2);
- Separate Excel Tables 1 and 2 available for sites that can't use PDF option;
- A certification statement is included in fillable PDFs
  - Signed by senior level staff member who:
    - Is familiar with contents of plan and knowledgeable of program requirements
    - Can commit resources to implementing reduction plans
    - For fillable PDF, digital signatures are acceptable; hand-signed, scanned also accepted if fillable PDF is not used.

Digital  
Signature:



Signed and  
Scanned:



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# Resources

## On NYSDEC Website:

- HWRP fillable form ([link](#)); ASR fillable form ([link](#)); BU fillable form ([link](#))
- Previous Webinars and P2I Case Studies ([link](#))
- Fact Sheet on Solvent Reduction ([link](#))
- \*\*\*NEW – Fact Sheet on Hazardous Wastewater Reduction ([link](#))

## Other Resources:

- EPA Pollution Prevention Website ([link](#))
- Mass. TURI Cleaner Solutions Database ([link](#))
- NYSP2I Website ([link](#))



# Partnership with NYSP2I



## HAZARDOUS WASTE SUPPORT

Hazardous Waste Reduction Plans can be complex and challenging. We help companies find innovative and sustainable solutions to reduce hazardous waste.

### EXPERIENCED, PROFESSIONAL, AFFORDABLE HELP!

New York State provides us with funds to help companies reduce hazardous waste. Projects are confidential and typically take two to four months with most companies contributing a modest cost share.

Our knowledgeable staff has over 200 years of technical experience and will help:

- identify a baseline
- identify opportunities to reduce the volume or quantity and toxicity of waste
- identify opportunities to reduce hazardous waste through implementing technically feasible and economically practical waste reduction technologies, process or operational changes, material substitutions, or by other means

### TESTIMONIAL:

"Our assistance from NYSP2I has been significantly reduced the amount of hazardous waste generated from our existing operations used in manufacturing several alloy wheels. We have exceeded our efficiency and performance, with lower increased productivity in operations."

**Paul Molinaro,**

Quality Control Manager, TEST Power Corporation

## P2I Programs:

- P2I's Direct Assistance Program
  - P2I well-suited to assist due to:
    - Expertise in fields (manufacturing, metal finishing, filtration, separation processes, etc.)
    - Cost assistance
- Green Technology Accelerator Center
- Life Cycle Assessment



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# Questions on HWRP



# Thank You

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