

# A STUDY OF CONTROL

KENTUCKY'S SUPERFUND PROGRAM & INSTITUTIONAL CONTROLS



ASTSWMO Superfund & Brownfields  
Symposium

Des Moines Iowa  
Wed August 10, 2022

Sheri Uhlenbruch, P.G.

# WHAT WILL YOU HEAR?

I WILL ANSWER QUESTIONS POSED BY  
INSTITUTIONAL CONTROLS FOCUS GROUP

I WILL EXPLAIN KY'S METHODS RELATING TO  
RISK MANAGEMENT OVERSIGHT



# QUESTIONS:

- WHAT IS OUR STRATEGY FOR ICs TO REMAIN PROTECTIVE
- DO WE RECEIVE FINANCIAL SUPPORT TO ATTAIN THESE GOALS
- DO WE PLAN ON REQUESTING HELP FROM EPA TO ASSIST WITH IC ACTIONS
- HAVE WE USED EPA GUIDANCE TO ENSURE ICs ARE IDENTIFIED AND IMPLEMENTED



# KY SUPERFUND'S IC STRUCTURE

## SUPERFUND; FEDERAL STATE OR POTENTIAL RESPONSIBLE PARTY SITES

- SITES CAN CLOSE UNDER 3 OPTIONS
  - NO ACTION NECESSARY
  - CONFIRMED REMEDIATION
  - MANAGED
- PE/PG-SUBMITTED MANAGEMENT PLAN
- MEETS AND BOUNDS
- ENVIRONMENTAL COVENANT

## BROWNFIELDS; LIABILITY PROTECTION APPLICANTS

- QUALIFIED APPLICANT
- PHASE I/II MEETS STANDARD
- PE/PG-CERTIFIED PROPERTY MANAGEMENT PLAN TIED TO ANTICIPATED USE OF PROPERTY
- EC OPTIONAL

# CONTINUED PROTECTIVENESS

## PRP-BASED

- ANNUAL CERTIFICATION
- 5 YEAR REVIEW

## BROWNFIELDS

- RANDOM AUDITS

### **Site Tracking**

Local Database (excel)

Department Database (ARM formerly TEMPO) – searchable

# PRP-BASED PROTECTIVENESS CONFIRMATION

ENERGY AND ENVIRONMENT CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
300 South Russell Avenue  
FRIEDLANDERS BUILDING #2001  
FRANKFORT, KY 40601  
Telephone: 502.564.1310  
Teletype: 502.564.4249

DATE: \_\_\_\_\_

Name of Owner  
Address of Owner

RE: XX Environmental Covenant Compliance Certification  
Facility Name  
City, County  
AL-XXXXX

Dear Name of Owner,

I am writing on behalf of the Kentucky Energy and Environment Cabinet's Division of Waste Management (the Division). On date of Grantor signature on EC an Environmental Covenant was signed by Grantor (the Grantor), and recorded on Date of recorded EC at the County/Name County Clerk's office, which restricts certain uses for property that you currently own at address of property.

Pursuant to the terms of the Environmental Covenant, you are required to submit an annual report to the Director of the Division, on the anniversary of the date this Covenant was signed by the Grantor, detailing your compliance or lack of compliance with the terms of the Covenant. Your annual certification will be due on DATE. If you have any questions, or want to discuss this matter further, please contact me at (502) 782-1225. Thank you for your attention to this matter.

Sincerely,

Name, Title  
Section  
Division of Waste Management

CC: Central File  
Ec: Tamara Hudson, DWM Director  
Todd Mallin, Risk Assessment Manager  
Christopher Jung, Superfund Section Supervisor  
Name, Project Manager

An Equal Opportunity Employer M/F/D

## ANNUAL CERTIFICATION

### CHECKLIST

### OWNER CERTIFICATION

Appendix 2  
Checklist For Five Year Reviews

Soils

- 1. Are soils on the site under management, and contain regulated substances above de minimus concentrations? If yes, go to 2. If no, go to 6.
- 2. If the remedy includes capping, are caps/cover, etc. in good condition?
- 3. If buildings or other structures are covering areas of contamination, are they still intact and providing an adequate cover?
- 4. Are other engineering controls designed to contain and manage soil contamination intact, in good condition, and performing as designed?
- 5. If applicable, have levels of COC's in soils remained consistent or decreased since last review?

Groundwater

- 6. Is groundwater at the site under management, and contain regulated substances above de minimus concentrations? If yes, go to 7. If no, go to 10.
- 7. Does analysis of monitoring data show significant changes in COC levels since last review?
- 8. Does analysis of monitoring data indicate migration of the contaminant plume beyond limits designed in the final remedy or risk management plan since last review?
- 9. Have groundwater flow direction/hydraulic gradients significantly changed since last review?

Engineering Controls

- 10. Are engineering controls in use as part of the contain-and-manage remedy at the site? If yes, go to 11. If no, go to 16.
- 11. If pump-and-treat methods are in use, have water withdrawal rates significantly changed since last review?
- 12. If groundwater extraction is occurring, have any other stresses on the aquifer in the area been introduced that might influence the capture zone, such as installation of additional wells at a nearby location?
- 13. Are engineering systems performing adequately and as designed in the remedy?
- 14. Are there indications of problems or potential problems in the design and capacity of engineered systems that may compromise the effectiveness of the remedy?
- 15. Are maintenance procedures for engineered systems adequate in maintaining system performance?

Institutional Controls

- 16. Have a restrictive covenant or other institutional controls been executed for the property(ies) under management? If yes, please include a copy, and go to 17. If no, go to 20.
- 17. Is the restrictive covenant still attached to the deed recorded in the county clerk's office?
- 18. Is the current land use consistent with the restrictions placed on the deed? If no, explain the inconsistency.
- 19. If applicable, are other controls in place, including site security measures, fencing, signage, etc.?

Risk Assessment

- 20. Has the land use changed since management plan implementation or since last review?
- 21. Have toxicity values for COCs changed since management plan implementation or since last review?
- 22. Exposure pathways/potential receptors changed since management plan implementation or since last review?

## 5-YEAR REVIEW

### MORE IN-DEPTH CHECKLIST

### REQUIRES SITE VISIT BY OWNER

### OWNER CERTIFICATION

Name of Facility \_\_\_\_\_ Agency Interest # \_\_\_\_\_

Checklist for Flood Damage Review

Soils

- 1. Are soils on the site under management? If yes, go to 2. If no, go to 5.
- 2. If the remedy includes capping, are caps/cover, etc. in good condition? Please provide current (i.e., post flood) photographic evidence.
- 3. If buildings or other structures are covering areas of contamination, are they still intact and providing an adequate cover? Please provide current (i.e., post flood) photographic evidence.
- 4. Are other engineering controls designed to contain and manage soil contamination intact, in good condition, and performing as designed? Please provide current (i.e., post flood) photographic evidence.

Engineering Controls

- 5. Are engineering controls in use as part of the contain-and-manage remedy at the site? If yes, go to 6. If no, go to 9.
- 6. Are engineering systems performing adequately and as designed in the remedy?
- 7. Are there indications of problems or potential problems in the design and capacity of engineered systems that may compromise the effectiveness of the remedy?
- 8. Are maintenance procedures for engineered systems adequate in maintaining system performance?

Institutional Controls

- 9. Have a restrictive covenant or deed restriction been executed for the property(ies) under management? If yes, go to 10. If no, go to the Certification Statement.
- 10. Is the restrictive covenant or deed restriction still attached to the deed recorded in the county clerk's office?
- 11. Is the current land use consistent with the restrictions placed on the deed? If no, explain the inconsistency.
- 12. If applicable, are other controls in place, including site security measures, fencing, signage, etc.?

Certification Statement

The party responsible for the property, or an authorized agent, must sign the following certification. Examples of authorized agents include the owner, president, plant manager, engineer, city engineer, or other appropriate person authorized to certify the accuracy of documents submitted.

"I certify under penalty of law that the information contained in this document, including attachments and supporting data, is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information."

Applicant or legally authorized representative (print) \_\_\_\_\_ Title \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

Property Owner (if different from Applicant) (print) \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

## EXTREME WEATHER CHECK

### REQUIRED SITE VISIT

### PHOTOGRAPHIC DOCUMENTATION

### OWNER CERTIFICATION

# BROWNFIELDS PROTECTIVENESS CONFIRMATION

Brownfield Audit Form

AI #/Site Name:  
Site Address:  
State Lead Site Information (if applicable):

Owner/Applicant:  
Site Contact:  
Phone:  
Email:

Current & Intended Use:  
Site History:  
Contaminants of Concern (COCs):  
Recognized Environmental Conditions (RECs):  
Engineering Controls/Engineered Barriers (ECs):  
Institutional Controls (ICs):  
Required Documentation:

Standard Questions: *(insert additional, site-specific questions after reviewing the Phase I ESA and PMP)*

1. Has any sub-surface construction been performed? (i.e. utility repairs, landscaping, fence work, soil sampling, etc.)
2. If yes, documentation of that construction? (who, what, when, where).
3. Do you have any plans for construction, alterations, or redevelopment in the near future?
4. Plans to sell the property?
5. Copy of PMP stored on-site?
6. Are your employees aware of the ECs and ICs?
7. Have annual inspections been performed, and are copies of those included on-site with the PMP?
8. Have any wells or devices to extract groundwater (i.e. irrigation systems) been installed?



## REGULATORY AUDIT

SITE VISIT

PROPERTY USE

PROPERTY MANAGEMENT PLAN

ANY ENGINEERED CONTROLS

## LIABILITY

FAILURE TO ADHERE TO TERMS OF PMP  
CAN RESULT IN LOSS OF PROTECTION

FINANCIAL AND ENVIRONMENTAL  
LIABILITY FOR CONTAMINATION

## PROPERTY USE/TRANSFER

NEW OWNER MUST REAPPLY

NEW USE OF PROPERTY MUST UPDATE  
PLAN, REQUIRES APPROVAL FOR  
PROTECTION

# FUNDING



## PRP-BASED

- HAZARDOUS WASTE MANAGEMENT FUND

## BROWNFIELDS

- APPLICATION FEES
- HAZARDOUS WASTE MANAGEMENT FUND
- 128(A)



# IMPROVEMENTS

IT'S NOT BROKE, BUT IT CAN BE SHINED-UP

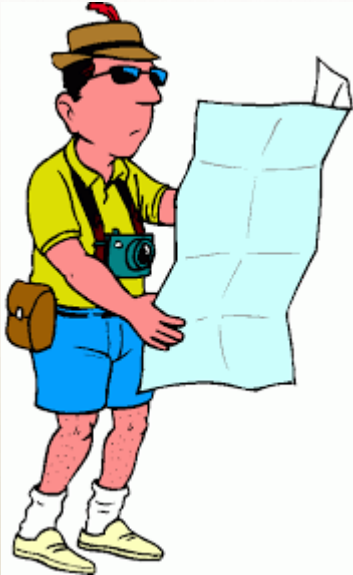
- INCREASE THE FREQUENCY AND NUMBER OF AUDITS TO ENSURE COMPLIANCE
- GPS-ENABLED AUDITING FORMS/TRACKING
- TRAINING FOR STAFF
- OWNER SEARCHES

# HELP PLEASE?

## KY REQUEST FOR ADDITIONAL \$\$\$ TO CONDUCT AUDITS

- INFRASTRUCTURE FUNDING VIA BROWNFIELDS
  - GROWING APPLICANT BASE/PROPERTIES UNDER VOLUNTARY MANAGEMENT
  - LENGTHENING TIME BETWEEN INITIATION OF PMP AND PRESENT TIME
- AVAILABILITY OF IC-SPECIFIC FUNDING WOULD HELP TREMENDOUSLY
  - ASSIST WITH PRP SEARCH FOR NON-VIABLE STATE LEAD EC PLACEMENT
  - REGULATORY VERIFICATION OF OWNER CERTIFICATION

# IC IMPLEMENTATION & ASSURANCE PLANS EPA GUIDANCE



- KY PROGRAM PRE-DATES GUIDANCE
  - OVERLAP
- FUTURE PLANNING

# SUMMARY

- KENTUCKY'S IC MANAGEMENT IS CROSS-DEPARTMENTAL
  - INCLUDES ECs, PROPERTY MANAGEMENT PLANS, AND CERTIFICATIONS OR AUDITS
- FUNDING IS THROUGH STATE AND FEDERAL SOURCES
  - INCREASES IN PARTICIPANTS AND INFLATION ADDS BURDEN
  - ADDITIONAL FUNDS AND IMPROVING EFFICIENCY NECESSARY
- FEDERAL GUIDANCE CAN SUPPLEMENT/SUPPORT ESTABLISHED STATE PROGRAMS

THANK YOU