Institutional Controls Strategy for Improved Success

ASTSWMO CERCLA Post Construction Focus Group and U.S. EPA

Overview

1. IC Data Evaluation
2. IC Effectiveness Tools and Support
3. State Success - Kentucky
4. Advance Monitoring

What are ICs?

Institutional Controls (ICs) -
"ICs are generally administrative and legal tools that do not involve construction or physically changing the site."
"…ICs help reduce the possibility that people will come in contact with contamination and may also protect expensive cleanup equipment from damage".
"…part of a balance, practical approach to site cleanup that relies on both engineering and non-engineering remedies." (EPA, 2005)

From: EPA, 2005. Institutional controls: a citizen's guide to understanding institutional controls at superfund, brownsfields, federal facilities, underground storage tank, an resource conservation and recovery act cleanups. OSWER 9255.0-98. Mar. 1. 9 p..
https://www.epa.gov/sites/default/files/documents/ic_ctzns_guide.pdf

Types of ICs?

- **Government Controls**: local laws or permits (e.g., zoning, building permits)
- **Proprietary Controls:** Property use restrictions (e.g., easements an covenants) (In Arizona declaration of environmental use restriction)
- **Enforcement Tools**: documents that require individuals or companies to conduct or prohibit specific actions (e.g., consent decrees, unilateral orders, or permits)
- **Informational Controls:** deed notices or public advisories that alert and educate people about the site (e.g., public outreach/education, State registries, fish advisories, access restrictions)

From: EPA, 2005. Institutional controls: a citizen's guide to understanding institutional controls at superfund, brownsfields, federal facilities, underground storage tank, an resource conservation and recovery act cleanups. OSWER 9255.0-98. Mar. 1. 9 p.. https://www.epa.gov/sites/default/files/documents/ic_ctzns_guide.pdf

Institutional Controls

This instrument prepared by:
Holly Taylor Cauley
Florida Department of Environmental Protection
3900 Commonwealth Blvd MS 35
Tallahassee, FL 32399-3200

DECLARATION OF RESTRICTIVE COVENANT

THIS DECLARATION OF RESTRICTIVE COVENANT (hereinafter "Declaration") is made this _____ day of _____, 2007, by Backyard Properties, LLC, a corporation authorized to conduct business in the State of Florida, (hereinafter GRANTOR) and the Florida Department of Environmental Protection (hereinafter "FDEP").

RECITALS

A. GRANTOR is the fee simple owner of that certain real property situated in the County of Dade, State of Florida, more particularly described in Exhibit "A" attached hereto and made a part thereof (hereinafter the "Property");

B. The FDEP Facility Identification Number for the Property is FDEP# 084. The facility name at the time of this Declaration is Standard Auto Bumper Superfund Site;

C. The Property is part of the Standard Auto Bumper Superfund Site, which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. 9605, proposed for the National Priorities List, set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register in October, 1989. A chromium and nickel plating facility owned by Standard Auto Bumper Corporation began operations in 1959. Operations continued through 1992. In early 1993, Standard Auto Bumper ceased operations and abandoned the facility leaving tanks with processing water and drums on-site. The Superfund Streamlined Remedial Investigation and Focused Feasibility Study confirmed that soil was

§ 14-2-106 MANDATORY WATER AND SEWER HOOKUP.

(A) *Waste Water.*

(1) *Development Accessible to City Sewer Lines.* All new residential subdivisions as well as multiple family and non-residential development within the city which are served by existing or planned future expansions to the city wastewater collection arid disposal system shall be required to connect to the public wastewater system pursuant to Chapter 29 of the Code.

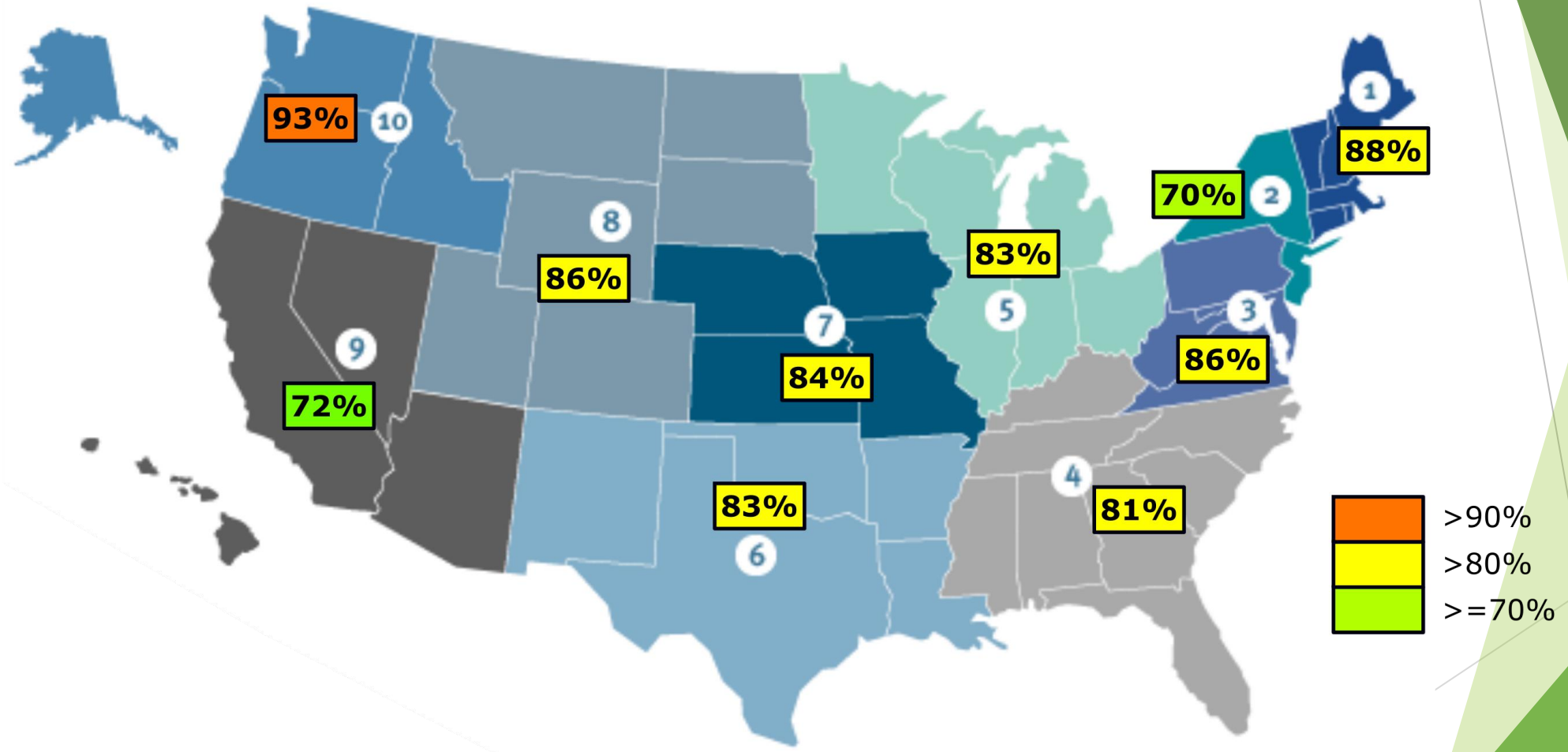
(2) *Development Not Accessible to City Sewers:* In areas where development cannot be connected to the public sewer, private wastewater disposal systems are acceptable as an interim measure for single family detached houses only, providing such facilities are approved by the City Director of Water Resources, and the Osceola County Environmental Health Unit. However, all private wastewater collection disposal systems shall be designed to facilitate mandatory hookups to the public wastewater system when the public system becomes available. See also § 29-135 of the code.

(B) *Potable Water.* All new development, defined as initial construction of a principal building, shall connect to city water supply lines.

(Ord. 2038, passed 12-20-94)

IC Data Evaluation

How prevalent are ICs used as a part of the remedy?



Percent of Non-Federal Facility Superfund Sites with ICs as part of remedy

Data source:
https://cumulis.epa.gov/supercpad/Cursites/srchsites.cfm

IC Data Evaluation

Review of the Data

- EPA provided data on IC issues identified during the FYR process
- Non-federal NPL sites only
- Data from 2016 – 2020
- Some of the sites included multiple IC issues associated each OU
- ~ 702 “issues” identified with OUs

Is there a problem?

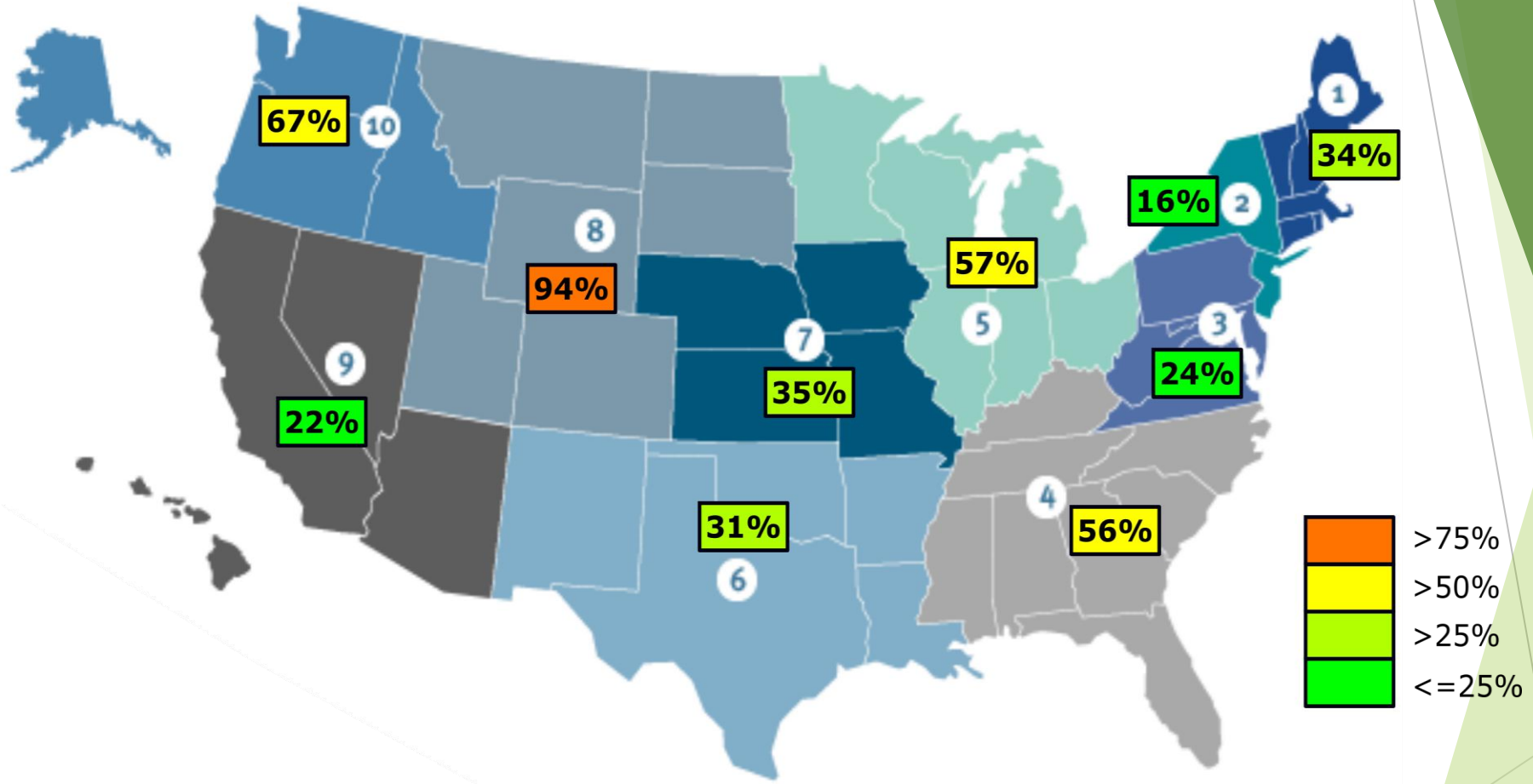
Region by Region:

Looked at the total number of non-federal Superfund Sites with complete and the number of issues identified for each region. on complete and the number of issues identified for each region.

EPA Region	Superfund Sites (non-federal) w Remedy	Number of Issues Identified in 5YR
R1	76	34
R2	193	41
R3	133	38
R4	**175**	**111**
R5	**252**	**353**
R6	96	37
R7	53	32
R8	32	63
R9	62	20
R10	51	29

Data source:
https://cumulis.epa.gov/supercpad/Cursites/srchsites.cfm

IC Data Evaluation



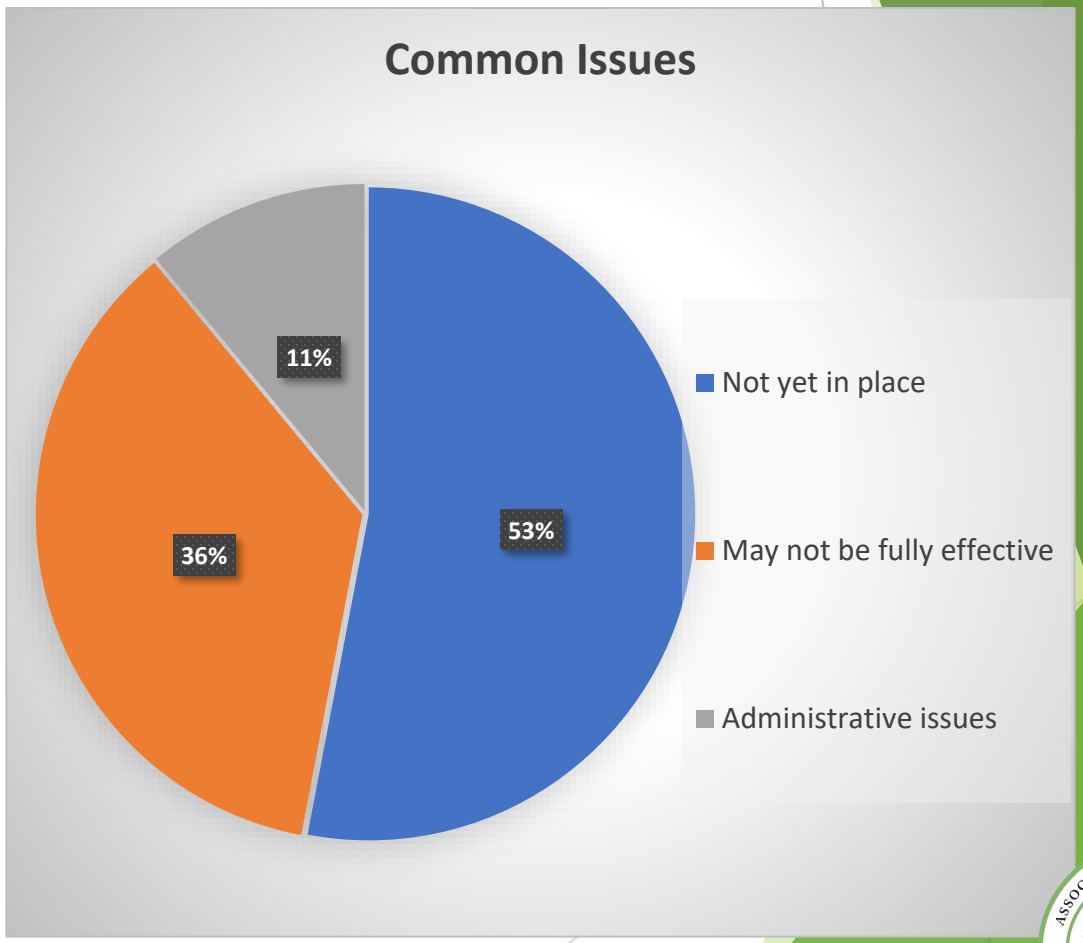
Percent of Non-Federal Facility Superfund Sites with IC issues noted in Five-Year Review, per EPA Region

Data source:
https://cumulis.epa.gov/supercpad/Cursites/srchsites.cfm

IC Data Evaluation

Evaluated the "**Common Issues**" and prioritized them based on 3 broad categories:

- **ICs not yet in place** - ICs are required but not yet in place or additional ICs are needed.
- **ICs may not be fully effective -** IC not working as intended or only partially implemented.
  - Procedure/Compliance Issues
  - Additional Evaluation Needed
- **Administrative issues** - IC information is not provided in decision document or incorrectly recorded.



Examples of Common Issues
(identified in recommendations in Five-Year Review document)

ICs not yet in place	ICs may not be fully effective	Administrative issues
▶ All ICs have not been Implemented ▶ Deed restriction needed ▶ Easements and/or restrictive covenants needed ▶ Effective ICs must be implemented	• Long term stewardship (LTS) plan is needed • An Institutional Control Implementation and Assurance Plan (ICAP)is needed • Effective ICs must be maintained, monitored, and enforced • Additional Assessment needed	• Decision documents do not require ICs for all areas needing ICs. • ICs are not in a decision document. • Lack of a decision document requiring ICs.

Regulatory Tools - Findings

Ability of States to implement ICs varies

- Some State regulations provide the ability to…
  - Implement an IC (UECA)
  - Require property owner to implement IC
  - Require other responsible party to implement ICs

Successful Tools For IC Implementation

Existing Tools

IC DATABASES

PUBLIC OUTREACH

IC LAYERING

IC Databases

- Several States have IC databases to keep track of IC's placed
- Databases range from simple spreadsheets to robust GIS maps
- Can be internal or public
- Maintaining a database helps organizing filed IC's, and inspecting IC's easier

Public Outreach

Periodic Site Information Mailers

Meeting with local realtor's associations

Making databases publicly available

Participate as a speaker for various technician training (e.g. Well Driller Training)

Mining Tax Records to identify new ownership

IC Layering

The layering of different methods to ensure the intent of the institutional control is met.

This includes the use of various Statutes and Rules.

IC Layering Examples

- Deed Notices/Restrictions
- Well Drilling Requirements
- Beneficial Use Designations
- City Ordinances
- Real Estate Disclosure Laws

Questions and Further Discussion