



Open Environmental Restoration Resource (OER2) Webinar

Things We Need to Know for a Better Five Year Review Report

Presented by:
NAVFAC Environmental Restoration Program

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Session: 3

Points of Contact



POCs

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Logistics



- Submit all questions via chat box throughout the presentation
- Presentation is being recorded
- Complete the webinar survey (main feedback mechanism)

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OER2 Webinar Series



- Why Attend?
 - Obtain and hear about the latest DOD and DON's policies/guidance, tools, technologies and practices to improve the ERP's efficiency
 - Promote innovation and share lessons learned
 - **FEEDBACK** to the ERP Leadership
- Who Should Attend?
 - ERP Community Members: RPMs, RTMs, Contractors, and other remediation practitioners who support and execute the ERP
 - Voluntary participation
- Schedule and Registration:
 - Every other month, 4th Wed (can be rescheduled due to holidays)
 - Registration link for each topic (announced via ER T2 email)
- Topics and Presenters:
 - **ERP community members** to submit topics (non-marketing and DON ERP-relevant) to POCs (Gunarti Coghlan – gunarti.coghlan@navy.mil or Josh Fortenberry – josh.fortenberry@navy.mil)
 - Selected topic will be assigned Champion to work with presenter

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Things We Need to Know for a Better Five Year Review Report

Tim Reisch, NAVFAC Atlantic

Purpose



This presentation is intended to provide feedback on common Five Year Review review comments and provide RPMs with a better understanding of potential issues and their impact on the development of appropriate protectiveness statements.

Presentation Overview



- The Five Year Review
 - Requirements and Process Improvements
 - Site Evaluation Criteria
 - Trigger Dates

- Review Comments
 - Technical Assessment
 - Issues and Recommendations
 - Protectiveness Statement

- Wrap Up

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The Statute says | CERCLA §121(c)



“If the President selects a *remedial action* that results in any hazardous substances, pollutants, or contaminants remaining at the site,

the President shall review such remedial action no less often than each five years after the *initiation* of such remedial action

to assure that human health and the environment are being *protected by the remedial action* being implemented.”

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Process Improvements



- EPA's Office of the Inspector General (OIG) concluded that there is a need for federal facility Five-Year Review Improvements:
 - Reduce backlog of sites with late five year reviews;
 - Improve national consistency;
 - Implement management controls for tracking and monitoring.

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Process Improvements



Five Year Review Interagency Workgroup (EPA, DOD, DOI & DOE)

- Five Year Review Community Outreach Materials
- Executive Summary Template
- Five Year Review Toolkit
- Draft Federal Facility Five-Year Review Training Module



Key Point

EPA and Federal Facilities are working together to improve Five Year Reviews; use their resources

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Five-Year Review - Site Evaluation Criteria



Trigger	Y/N	Evaluate?	Notes	More info
Is there a ROD (interim or final) for this OU?	N	N		CERCLA 121(c) Guidance sec. 1.5.3
	Y	Y	Statutory review no later than 5 years after RA start	Guidance sec.1.3.1
Y		Y	Policy review no later than 5 years after sitewide construction completion	Guidance sec.1.3.2
Is there an Action Memo?	Y	Depends	Evaluate at NPL sites where no RA has or will occur	Guidance Table 1-1 Guidance sec. 1.2.2 and 1.5.3
Does the OU meet UU/UE?	Y	N	Exceptions: -UU/UE for the first time, after statutory or policy triggers have been met -where tox value changes indicate a UU/UE site may no longer be UU/UE (caution: NFA does not always mean UU/UE)	NCP 40CFR300.430(f)(4)(ii) Guidance sec. 1.2.4 and 1.5.4

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Five-Year Review - Site Evaluation Criteria



•No requirement to include any site in the Five Year Review for which there is no remedy to evaluate

- Navy prefers not to include these sites in the Five Year Review (no requirement)
- DOD Guidance allows for such sites to be included to provide “*complete picture of restoration activities*”

Key Point

Five Year Reviews only required for Sites with ROD(s) where contamination does not allow for UU/UE

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Five-Year Review Trigger Dates – First Five Year Review



•First Five-Year Review

- 5 years after the start of first remedial action installation on an installation; the Five Year Review shall be completed and signed by the DON within five years of this trigger date.
- Remedies with RA-C phase (construction), start date is on-site mobilization
- Remedies without RA-C phase, start date depends:
 - LUC remedy - start date is the date of the ROD
 - MNA remedy - start date is the date 1st post-ROD monitoring event

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Five-Year Review Trigger Dates – Subsequent Five Year Review



•Subsequent Five-Year Reviews

- Single installation-wide Five Year Review document
- Trigger date is five years from the DON signature date of the previous Five Year Review

Key Point

The NAVY signature date on each Five Year Review becomes the trigger date for the next Five Year Review

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Critical Information Path



REMEDIAL ACTION OBJECTIVES (RAOs)



TECHNICAL ASSESSMENT



PROTECTIVENESS STATEMENT

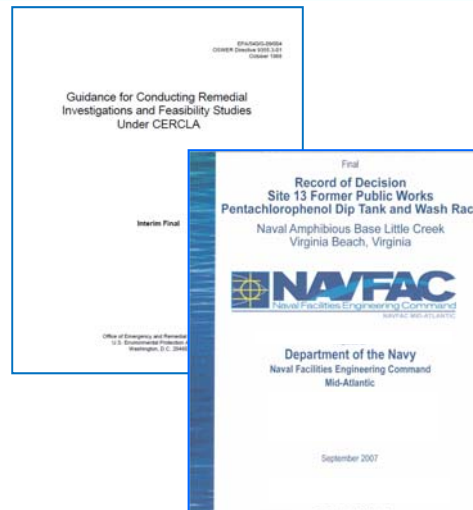
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Remedial Action Objectives



Remedial action objectives aimed at protecting human health and the environment should specify:

- The contaminant(s) of concern
- Exposure route(s) and receptor(s)
- Objectives of remediation goal



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Common DON Five-Year Review Comments



- Review Comments
 - Technical Assessment
 - Issues and Recommendations
 - Protectiveness Statement

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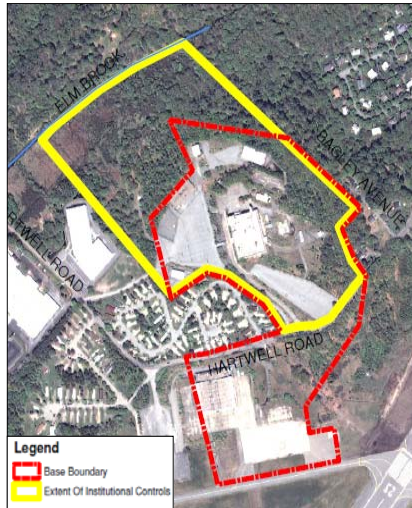
Common DON Five-Year Review Comments



- Review Comments
 - Technical Assessment
 - Question A* – *Is the remedy functioning as intended by the decision documents?*
 - *Question B* – *Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?*
 - Question C* – *Has any other information come to light that could call into question the protectiveness of the remedy?*

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Technical Assessment Review Comments



Internal Draft Five Year Review

Unnamed Naval Facility
My State, USA
June 2014

Prepared for Naval Facilities Engineering Command

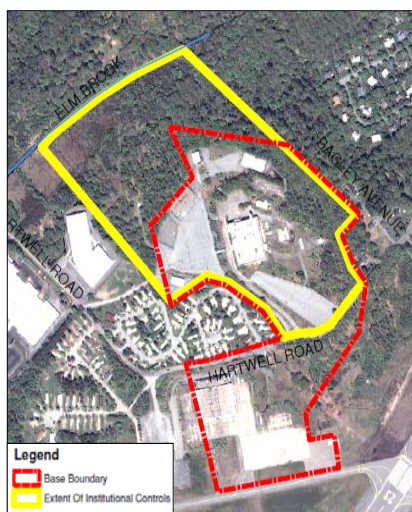
Five Year Review Remedy Description

Remedial Action components identified in the 2009 ROD for Site Whatever at Unnamed Naval Facility:

- In-situ enhanced bioremediation of the source area
- Continued operation of the existing groundwater pump-and-treat system at the property line for plume capture and control
- MNA/LTM;
- LUCs
- Five-year reviews

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Technical Assessment Review Comments



Record of Decision

Site Whatever
Unnamed Naval Facility
My State, USA
September 2009

Prepared for Naval Facilities Engineering Command

- Residential exposure evaluation of surface soils, not subsurface soils
- Groundwater RAOs only
- Remedy includes soil LUCs, although *“No unacceptable risks associated with site soil, sediment or surface water were identified”*

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Technical Assessment Review Comments



Land Use Control Remedial Design

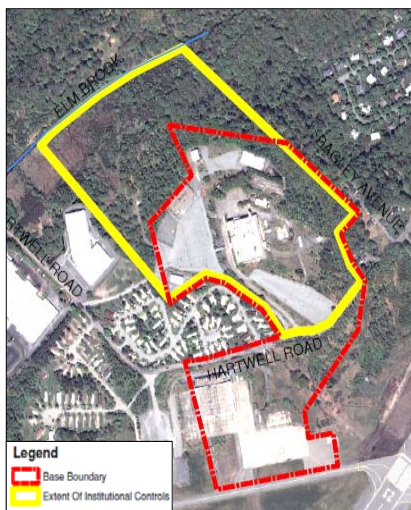
Site Whatever
Unnamed Naval Facility
My State, USA
December 2011

Prepared for Naval Facilities Engineering Command

"The LUCs included in the selected remedy will prevent residential development of the site until COC concentrations allow for unlimited use and unrestricted exposure."

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Technical Assessment Review Comments



- Consistent documentation of link between Risk-RAO-Remedy-Performance Measures
- Pull the thread – find out the whole story

Key Point

DON Policy is
START EARLY !!!!

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Technical Assessment Review Comments



When not previously assessed, simply having volatile chemicals in soil, or groundwater, and a building in the vicinity **does not necessitate a Protectiveness Deferred** determination

Scenario: VOC groundwater remedy in place. VI not yet evaluated. Nearby building is aircraft hanger with open bay doors and thick concrete slab.

Protectiveness: Protective in the Short-Term



Key Point

Consider Multiple Lines of Evidence in the context of the Conceptual Site Model

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Issues and Recommendations Review Comments



TABLE 5-9
Issues, Recommendations, and Follow-Up Actions for Sites 9 and 10

Issue	Recommendations and Follow-up Actions	Party Responsible	Milestone Date*	Affects Protectiveness	
				Current	Future
Issues Identified for Follow-Up Action During Current Five-Year Review					
Ruts in the soil cover and debris, including steel pipe, asphalt, and tires were observed during the site inspection at Site 10.	Repair existing ruts and remove surface debris from Site 10. Continue annual landfill inspections to monitor potential continued debris disposal and cover conditions. Conduct an investigation to determine the means by which debris has been disposed of within the area and make recommendations to prevent future disposal activities.	Navy	September 2014	N	N

TABLE 5-7
Remedy Maintenance and Optimization Activities for Sites 9 and 10

Maintenance/Optimization Opportunity	Recommendations	Party Responsible
Site signs are in place; however, contact information on select signs is outdated.	Update the contact information on the select signs.	Navy
Monitoring well LS09-MW03 was not located during the site inspection.	Locate monitoring well LS09-MW03 and assess the condition of the well.	Navy

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Issues and Recommendations Review Comments



Quarterly Inspection Form

The image shows a 'Quarterly Inspection Form' with a checklist on the right side. The checklist items are:

- Inspected the site
- Inspected the site
- Inspected the site
- Inspected the site

Below the checklist, there is a section for 'Inspection Date' and 'Inspector Name'. The date is '10/10/2018' and the name is 'John Smith'. There is also a section for 'Inspection Results' with a 'Pass' button and a 'Fail' button. The 'Pass' button is selected.



Key Point

Only track those O&M issues that affect current or future protectiveness.

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Protectiveness Statements Review Comments



- Review Comments
 - Protectiveness Statements
 - Protective
 - Protective in the Short Term
 - Will be Protective
 - Protectiveness Deferred
 - Not Protective

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Protectiveness Statements Review Comments



- **No requirement** to include any site in the Five Year Review for which there is no remedy to evaluate
- **EPA Guidance** - if the start of a remedial action has not occurred at a site requiring a statutory review, a review is not required
 - One Installation-wide Five Year Review for Navy installations, typically with multiple site evaluations
- **Only installations that have “Construction Complete”** require a “site-wide” Protectiveness Statement

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Protectiveness Statement Review Comments



The image shows two copies of a 'Protectiveness Statement' form. The form on the left is a standard, filled-out version. The form on the right is identical but has a large red circle with a diagonal slash through it, indicating it is not to be used or is invalid. Both forms contain a photograph of an industrial site, a signature, and various checkboxes and text fields.

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Protectiveness Statement Review Comments



NAFAC Vapor Intrusion Five Year Review Protectiveness Statements

EPA issued a November 2013 CERCLA Directive 5302-204 assessing Protectiveness of Sites for Vapor Intrusion (VI) in a supplement to EPA's Superfund Review Guidance. This website offers guidance when VI has not previously been evaluated, or if a determination has not been made that it either is or is not occurring.

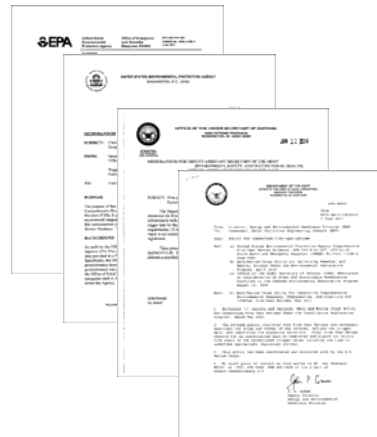
When not specifically assessed, simply having viable alternatives in soil, or groundwater, and a building in the vicinity does not constitute a Protectiveness Deferral statement, which is practical for vapor intrusion to occur may make consideration of factors that influence its occurrence (e.g., soil or building characteristics) available information to support a Protective in the Short Term statement, if possible. Influential factors could include:

- *Building characteristics such as high air exchange rates, floor slabs, and ceiling building joints adjacent to VI
- *Radon measurement data or measurements of radon over source and building
- *Radon sources

Consider the nature and degree of uncertainty as well as the degree of available data when considering Protective in the Short Term or Protectiveness Deferral statements.

If VI is found to be occurring with indoor air levels above or repeatedly above risk based screening levels, then measures should be taken to promptly reduce levels and/or prevent recurrence. Consequently, there should never be the need for a "Not Protective" statement with respect to VI issues.

Comments	Protectiveness Statement
VI protectiveness already in place VI not yet evaluated. Needs building to be well-leaked with open top doors and other concerns.	Protective in the Short Term
High levels of VOCs in soil immediately beneath building. Remedial and/or ground remediation may be needed to reduce radon gas pressure. Further VI may result in exceeding risk-based concentrations.	Protective in the Short Term
High levels of VOCs in soil immediately beneath building. Remedial and/or ground remediation may be needed to reduce radon gas pressure. Further VI may result in exceeding risk-based concentrations.	Protective in the Short Term
Identifying VI uncertainty with a remedial plan to reduce the uncertainty and/or prevent recurrence. Consequently, there should never be the need for a "Not Protective" statement with respect to VI issues.	Protective in the Short Term



Key Points

- Start Early
- Use available resources
- Seek technical support from LANT and PAC

Key Points



- Follow the Critical Information Path
- In the Technical Assessment, think about how the remedy performance measures up to the RAOs
- Address the effectiveness of the remedy in the achieving RAOs and address the site risk.
- Select the appropriate Protectiveness Statement

Questions



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Wrap Up



- Please complete the feedback questionnaire at the end of this webinar. We are counting on your feedback to make this webinar series relevant!

- **Next OER2 Webinar Info....**

NAVFAC Perfluorinated Compounds (PFCs) Guidance: Your Questions, Our Answers

Presenter: Dave Barclift

Date: Wed Feb 25th, 2015

Time: 11:00-12:00 PST

Thank you for participating!

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