



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
1322 PATTERSON AVENUE, SE SUITE 1000
WASHINGTON NAVY YARD DC 20374-5065

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From: Commander, Naval Facilities Engineering Command

Subj: LEAD BASED PAINT GUIDANCE / FREQUENTLY ASKED QUESTIONS

Ref: (a) Department of Defense Manual (DODM). 4715.20. Defense Environmental Restoration Program (DERP) Management, March 2012

Encl: (1) Lead Based Paint Guidance/ Frequently Asked Questions, January, 2014

1. In accordance with reference (a), guidance and procedures for addressing Lead Based Paint (LBP) under the Environmental Restoration, Navy (ER,N) Program and Navy Base Realignment and Closure (BRAC) Program are provided in Enclosure (1). As many Navy installations have been receiving requests to evaluate LBP at cleanup sites, this LBP Frequently Asked Questions (FAQ) Guidance assists with identifying issues and promoting a consistent approach for dealing with LBP at Navy Environmental Restoration (ER) sites.

2. The main objective of the LBP FAQ Guidance is to assist Remedial Project Managers (RPMs) with programmatic and technical issues related to LBP at Naval ER sites. This guidance will address issues in the following areas: eligibility and funding responsibilities and scenarios, risk assessment methodology, and regulatory requirements.

3. The Headquarters point of contact is Ms. Kim P. Brown, who can be reached at kim.brown@navy.mil or (202) 685-0096. Technical questions can also be directed to Mr. Tim Reisch at timothy.reisch@navy.mil or (757) 322-4130.

A handwritten signature in black ink that reads "Larry E. Douchand".

LARRY E. DOUCHAND

Assistant Commander for Environmental Programs

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LEAD-BASED PAINT GUIDANCE/FREQUENTLY ASKED QUESTIONS

Objective/Purpose

The main objective of this document is to assist Naval Facilities Engineering Command (NAVFAC) Remedial Project Managers (RPMs) with programmatic and technical issues related to lead-based paint (LBP) at Navy Environmental Restoration (ER) sites. This guidance will address issues in the following areas: funding responsibilities, risk assessment methodology, and regulatory requirements. Frequently asked questions are presented to give general guidance. However, the NAVFAC RPM is encouraged to discuss site-specific conditions with their respective Facilities Engineering Command (FEC) ER Manager to determine if circumstances allow for Environmental Restoration, Navy (ER,N) eligibility.

Applicability

The guidance and procedures in this document apply to actions taken under the ER,N and Base Realignment and Closure (BRAC) programs.

Background

In the development of the Department of Defense (DOD)/Environmental Protection Agency (EPA) Field Guide (DOD and EPA 1999), the DOD and EPA agreed to a framework for addressing LBP in **residential areas that were being disposed of by the DOD** following the Residential Lead-Based Paint Hazard Reduction Act (Title X), including its implementation regulations under the Toxic Substances Control Act (TSCA) and the guidance of the Department of Housing and Urban Development (HUD). The DOD and EPA further agreed that, as a matter of policy, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and/or Resource Conservation and Recovery Act (RCRA) would not apply except in limited circumstances.

Regarding **non-residential areas leaving the DOD's inventory**, the DOD and EPA agreed that further study was necessary. Until the study was completed and evaluated, the agencies agreed to focus sampling efforts in non-residential areas to certain types of metallic structures where soil-lead from LBP could be reasonably expected (water towers, communication towers, bridges), and to specific areas where the known future use included children. Additionally, the EPA agreed not to require LBP sampling at non-residential areas.

The study of non-residential LBP issues commissioned by the DOD/EPA Field Guide (December 1999), Lead-Based Paint Guidelines for Disposal of Department of Defense

Residential Real Property - A Field Guide, has not been conducted. This has resulted in vague guidance for assigning roles and responsibilities and identifying funding sources for the assessment and control of non-residential structures with LBP, and for the investigation and remediation of environmental media impacted by release of LBP into the environment. With the release of the revised DOD Manual 4715.20 (MAR 2012), the Defense Environmental Restoration Program (DERP) Manual, DOD clarified the eligibility requirements regarding the expenditure of environmental restoration account funds on activities associated with LBP issues.

The EPA is in the rule-making process for determining which renovations, repairs, and painting activities on and in public and commercial buildings may create LBP hazards; and, for those that do, developing certification, training, and work practice requirements. The EPA has agreed to issue a proposed rule for these activities, or to determine these activities do not create LBP hazards (by July 1, 2015). If the EPA issues the proposed rule, they will take final action within 18 months of the issuance.

In general, the Navy recommends managing lead paint in-place and performing preventive maintenance to keep painted surfaces from deterioration. Wholesale testing and removal of paint is not recommended (NAVFAC 2004).

NAVFAC RPMs should continue to address ER sites at naval facilities following the site prioritization established by the relative risk ranking (RRR) process. Following the RRR site prioritization and because of the increasingly competing demands on the available ER,N or BRAC funding for higher risk sites, addressing LBP issues at these sites should be a low priority. This is consistent with EPA guidance for addressing exterior LBP and soil contamination from LBP (EPA 1998).

Organization of this Document

The remainder of this document answers the following frequently asked questions (FAQs).

FAQ – General/Definitions

- G1.** What is the definition of lead-based paint (LBP)?
- G2.** What is the definition of a CERCLA release?
- G3.** What is the definition of an active source for the purposes of investigation/ remediation of lead from LBP using ER,N or BRAC funding?
- G4.** What are the laws that drive cleanup of lead based paint?
- G5.** What are the differences between “remediation,” “abatement,” and “interim controls”?

FAQ - Eligibility and Funding: What scenarios are eligible for ER,N or BRAC funding?

- E1.** When is lead from LBP considered a CERCLA release?
- E2.** When can ER,N or BRAC funding be used to remediate LBP?
- E3.** Can ER,N or BRAC funding be used to address releases of LBP from non-residential structures?

E4. Is the process for addressing LBP under the ER,N program different for BRAC funding and BRAC installations?

FAQ - Investigation and Sampling

S1. When should environmental media be sampled for potential LBP releases?

S2. How should sampling be conducted for sites with potential LBP releases?

FAQ - Risk Assessment

R1. Should lead automatically be included in the CERCLA risk assessment?

R2. If lead from LBP is the only risk driver at a CERCLA site, does it drive a response?

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R4. If there is no CERCLA risk at an ER site, do Applicable or Relevant and Appropriate Requirements (ARARs) apply?

R5. Do we calculate lead risks differently if the source is LBP, or if the source is from a combination of LBP and other sources (e.g. batteries)?

R6. How are background levels for lead established?

FAQ – Land Use Controls

L1. If a site obtains a No Further Action (NFA) determination based on unrestricted use/unlimited exposure (UU/UE), are LUCs required to address future releases of LBP?

FAQ – Five-Year Review Issues

F1. Should LBP be considered during Five-Year Reviews?

Responses to FAQs are as follows:

FAQ – General/Definitions

G1. What is the definition of lead-based paint (LBP)?

Historically, lead was added to paint to speed up drying, increase durability, maintain a fresh appearance, and resist moisture that causes corrosion. It is one of the main health and environmental hazards associated with paint prior to its ban as an additive in 1978.

Lead-based paint is generally defined as paint (or other surface coatings) that contains lead equal to or in excess of 1.0 milligram per square centimeter (cm²) or 0.5 percent by weight (40 CFR §745.103), which is also equivalent to 5,000 ppm by weight. Sampling and laboratory analysis may be required to ascertain LBP presence, refer to FAQ S1 and S2.

G2. What is the definition of a CERCLA release?

CERCLA §101(22) defines “release” as: *“any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant)...”*

G3. What is the definition of an active source for the purposes of investigation/remediation of lead from LBP using ER,N or BRAC funding?

An active source is any structure that is a continuing source of lead contamination from a release of LBP to the environment. If lead is retained as a chemical of concern (COC) and after any active LBP source has been mitigated, ER,N or BRAC funding can be used to remediate the lead in the impacted environmental media caused by the release of LBP from the structure.

G4. What are the laws that drive cleanup of lead based paint?

Laws that drive cleanup of LBP under the DERP and BRAC programs are CERCLA and Section 403 of TSCA. Lead released to soil from LBP should be managed under CERCLA following the DERP eligibility requirements. The TSCA presents standards for LBP hazards supplemental to Title X, which developed a comprehensive federal strategy for reducing lead paint hazard exposure.

G5. What are the differences between “remediation,” “abatement,” and “interim controls”?

For the purposes of this document, the terms remediation and environmental restoration activities concern the cleanup of environmental media associated with the DERP and the Navy ER program which follow the CERCLA process. The terms abatement and interim controls are defined in Title X and are associated with activities to reduce exposure to lead paint hazards; these terms are not associated with the CERCLA process. Interim controls temporarily control lead-based paint hazards; whereas, abatement is intended to eliminate lead-based paint hazards.

Interim controls commonly include LBP stabilization by removing deteriorating paint, preparing the substrate for repainting, and repainting. Abatement means the removal from, permanent containment of, or encapsulation of LBP in structures and buildings. Interim controls require periodic monitoring and continued maintenance. Abatement provides a long-term solution that requires little, if any, monitoring or reevaluation. Under Title X, abatement also includes the removal or permanent capping of soil associated with residential areas.

FAQ - Eligibility and Funding: What scenarios are eligible for ER,N or BRAC funding?

E1. When is lead from LBP considered a CERCLA release?

A release of LBP into the environment occurs when LBP is reasonably expected to exist, and there is evidence of debris (i.e. paint chips) released to the environment. The release may be the result of historical maintenance activities, paint stripping and repainting, of a structure, or significant deterioration of paint on a structure due to poor or no maintenance. The EPA's longstanding interpretation of the term "release into the environment" is that a release that remains entirely contained within a building is not a release into the environment and therefore is not a CERCLA release (EPA 1993). LBP that is properly maintained and in normal use is not considered a release.

E2. When can ER,N or BRAC funding be used to remediate LBP?

ER,N or BRAC funding is eligible to address lead from LBP that (1) is considered to be a release to an environmental media, as defined by CERCLA, and (2) presents a potentially complete current or future exposure pathway to receptors. In accordance with the DERP Manual, LBP-driven activities eligible for ER,N or BRAC funding include the following:

- At a non-DOD facility, at which contamination (i.e. lead) from a DOD facility (or site under the jurisdiction of DOD) has migrated to the non-DOD facility.
- Remediation of LBP that is incidental, or within the footprint of, other DOD environmental remediation sites.
- Remediation of soil-lead hazards surrounding housing constructed between 1960 and 1978, which did or does contain LBP, unless the transfer agreement requires the purchaser to perform these activities.
- Activities intended to evaluate and remediate soil-lead hazards for target housing demolished and redeveloped for residential use following transfer. The terms of the property transfer shall include a requirement for the transferee to evaluate and remediate any soil-lead hazards prior to occupancy of any newly constructed dwelling units.
- Activities intended to evaluate the need for interim controls, remediation, or no action for bare soil-lead concentrations between 400 and 1200 parts per million (excluding children's play areas) based on findings of the LBP inspection, risk assessment, and criteria contained in the DOD/EPA Field Guide.

ER,N or BRAC funding cannot be used to address:

- Surveys, containment, removal, or disposal, of LBP that has not been released to the environment.
- Lead in soil when the lead is related to background conditions.
- Abatement of LBP in or on active non-residential structures or other physical assets.

As noted in the DOD/EPA Field Guide, CERCLA responses for LBP issues at residential transfers may take place when the potential site is included in or overlapping a target

housing area that is already being addressed under CERCLA or RCRA as part of the DERP, or has been identified as appropriate for DERP inclusion due to contamination other than LBP.

E3. Can ER,N or BRAC funding be used to address releases of LBP from non-residential structures?

Yes, when LBP is reasonably expected to exist, and there is evidence of debris (i.e. paint chips) released to the environment. The release may be the result of historical maintenance activities, paint stripping and repainting, of a structure, or significant deterioration of paint on a structure due to poor or no maintenance.

The facility's Public Works Department (PWD) has the responsibility for maintenance actions of structures to mitigate the active sources resulting in releases of LBP via interim controls or abatement (NAVFAC 2004). Therefore, ER,N or BRAC funding should not be used to mitigate LBP that is deteriorating from an active source. The NAVFAC RPM should contact the facility's PWD to identify the parties responsible for the maintenance of the structure to address the release and identify the proper response and the appropriate funding. Additionally, activities to address LBP incidental to a CERCLA investigation and/or remedial action are ER,N or BRAC eligible.

The following scenarios are provided to assist the NAVFAC RPMs in making action determination decisions when LBP is encountered:

Scenario 1 – LBP painted structure with no evidence of a release. The structure is not located on an environmental restoration site already being addressed under CERCLA.

Action – No release has occurred; therefore, expenditure of ER,N or BRAC funds to investigate or to conduct a LBP survey of this structure is prohibited under the DERP.

Scenario 2 – LBP painted structure with evidence of a release. The structure is not located on an environmental restoration site already being addressed under CERCLA.

Action – A release of LBP has occurred. Assessment of the structure's condition and implementation of maintenance action to mitigate the source of the release via interim controls or abatement is the responsibility of the facility's PWD. Coordination with the FEC ER Manager, NAVFAC Headquarters (HQ), and the facility's PWD may be necessary to determine if further investigation of the release is necessary to assess the potential for adverse impact to environmental media.

Scenario 3 – LBP painted structure with no evidence of a release. The structure is located on an environmental restoration site already being addressed under CERCLA.

Action – A release of LBP has not occurred. However, activities associated with the structure may be the source of, or have contributed to, the contamination subject to the CERCLA investigation of the site. As such, dependent upon the site's conceptual site model (CSM), the investigation, and potential remediation, for lead would be conducted following CERCLA under the environmental restoration activities at the site. Therefore, these activities would be ER,N or BRAC eligible under the DERP.

Scenario 4 – LBP painted structure, or former structure, with evidence of a release. The structure, or its former location, is located on an environmental restoration site already being addressed under CERCLA.

Action – A release of LBP has occurred and the activities associated with the structure may be the source of, or have contributed to, the contamination subject to the CERCLA investigation of the site. As such, the investigation, and potential remediation, for lead from LBP is incidental to other environmental restoration activities at the site. Therefore, these activities are ER,N or BRAC eligible under the DERP. However, prior to implementing any environmental restoration activities at the site, the facility's PWD should assess the condition of existing structures located on the site and conduct any necessary maintenance actions to mitigate the source of the LBP release via interim controls or abatement. These maintenance actions are required to reduce the potential of recontamination of the site after the CERCLA remedial action is implemented.

E4. Is the process for addressing LBP under the ER,N program different for BRAC funding and BRAC installations?

Yes. BRAC installations involve additional requirements with regard to LBP. There are cleanup as well as abatement responsibilities (DOD 1994). In addition to having to manage the investigation and restoration of these sites, BRAC is also responsible for managing the critical mission of property transfer and disposal. In accordance with DOD Policy, LBP shall be abated/remediated if it is of a type and condition that is not in compliance with applicable laws, regulations and standards or if it poses a threat to human health at the time of transfer of the property. The federal requirements for residential structures/dwellings with LBP on BRAC properties differ, depending on: (1) the date of property transfer; and (2) the date of construction of the residential housing being transferred.

Target housing¹ **constructed before 1960** must be inspected for LBP and LBP hazards, and such hazards must be abated. The results of the LBP inspection will be provided to prospective purchasers or transferees of BRAC property identifying the presence of LBP and LBP hazards on a surface-by-surface basis and a description of the abatement measures taken. In addition, prospective transferees must be provided with a lead hazard information pamphlet and the contract for transfer must include a lead warning statement.

Target housing **constructed after 1960 and before 1978** must be inspected for LBP and LBP hazards. The results of the inspection must be provided to prospective purchasers or transferees of BRAC property, identifying the presence of LBP and LBP hazards on a surface-by-surface basis. There is no federal LBP hazard abatement requirement for such property. In addition, prospective transferees must be provided a lead hazard information pamphlet and the contract for sale or lease must include a lead warning statement.

The inspection and abatement discussed above will not be required when the building is scheduled for demolition by the transferee and the transfer document prohibits occupation of the building prior to the demolition; the building is scheduled for non-residential use; or, if the building is scheduled for residential use, the transferee conducts renovation consistent with the regulatory requirements for the abatement of LBP hazards (DOD 1994).

Additional information regarding the applicable environmental requirements when transferring DOD property is available in the DOD/EPA Field Guide.

¹*Target Housing*, a type of residential real property, is “any housing constructed before 1978, except housing that is designated exclusively for the elderly or persons with disabilities (unless a child younger than 6 years of age also resides, or is expected to reside, in such housing) or any *zero-bedroom dwelling*.” (DOD and EPA 1999)

FAQ -- Investigation and Sampling

S1. When should environmental media be sampled for potential LBP releases?

Environmental media is sampled to detect lead, not the presence of LBP. Sampling and analysis for lead, from LBP, in environmental media should only be performed when historical evidence and/or the CSM support that a release of LBP to the environment has occurred. Refer to the Eligibility and Funding section of this document for detailed information related to definitions (FAQ G1 and G3)) and ER,N or BRAC eligibility requirements (FAQ E1 and E2).

Procedures may differ for potential or existing housing areas; see E4 above and consult the DOD/EPA Field Guide.

S2. How should sampling be conducted for sites with potential LBP releases?

It is important to consider the project data quality objectives (DQOs) and how the data will be used to make decisions about the site when deciding what sampling procedures will be used. The objective of most environmental sampling programs is to characterize the nature and extent of contamination and to estimate chemical concentrations that receptors may be exposed to at a site. It is important to have a well-developed CSM that would support the ability to extrapolate the sampling results (i.e. using decision units) from one area to another.

When the source of lead in environmental media (e.g., soil) is LBP, characterizing a paint chip as part of the environmental matrix becomes a concern since a large paint chip may

not be representative of the environmental matrix, and accordingly it would not provide a realistic exposure estimate. If large LBP chips are present at the site, this should be noted in the field log. When LBP chips are mixed with site soils, this heterogeneous distribution of lead can present significant challenges to accurate sampling. If a single chip of LBP gets included in a soil sample, it may be impossible to ever replicate that result. As such, this could result in remediation that actually would not be warranted.

The type of sampling performed (i.e., discrete, composite, or incremental sampling) may have less of an impact on the accuracy of the results than the handling of the sample (e.g., mixing, sieving, grinding, etc.). Regardless of the sampling method used, it is important to consider the possible heterogeneous nature of the media being sampled and thus ensure that the sample handling procedures and data quality measures (e.g., field duplicates) are appropriate to help meet the DQOs for the site.

FAQ - Risk Assessment – General

R1. Should lead automatically be included in the CERCLA risk assessment?

No. The presence of lead from LBP at a site must be eligible as described in the Eligibility and Funding section of this document. If it meets those requirements, then the answer may still be no. Inclusion of any constituent, including lead from LBP, in a risk assessment depends on the CSM and if there may be a realistic exposure scenario. For example, the size of the footprint of the impacted media, such as soil or sediment around a structure, can help determine if there exists a pathway and receptors for there to be a potential risk. Note that a potential release of LBP is evaluated as lead in a CERCLA risk assessment. There must be a potentially complete exposure scenario from a CERCLA release for current or reasonably anticipated future land use.

For clarification, the HUD definition of a risk assessment differs from CERCLA. HUD risk assessments determine the presence or absence of lead-based paint hazards and suggest appropriate hazard control measures. A CERCLA risk assessment is a process by which the cause and effect under a set of circumstances (e.g., exposure) is integrated with the extent of circumstances to quantify or otherwise describe risk.

R2. If lead from LBP is the only risk driver at a CERCLA site, does it drive a response?

Yes, but not until the active source (as defined in FAQ G3) has been addressed. Note that for active sources of LBP releases, interim control and abatement (as defined in FAQ G4) of LBP is not eligible for ER,N funding (see E-1 and E-2 for additional information). The RPM should contact the facility's PWD to identify the parties responsible for the maintenance of the structure(s) to address the release and identify the proper response and the appropriate funding. The remediation of lead in the environment (e.g., soil) should follow the DERP/CERCLA process.

R3. What happens if the concentration of lead at my site does not generate a CERCLA risk, but exceeds state cleanup levels?

ER,N and BRAC sites should follow the CERCLA risk assessment process. If there is no CERCLA risk, no action is necessary regardless as to whether the lead levels at the site exceed state cleanup criteria. The NAVFAC RPM should be mindful of the distinction between promulgated state standards and state guidance levels, and are encouraged to discuss issues related to ARARs and “To Be Considered” (TBC) criteria with counsel.

- R4.** If there is no CERCLA risk at an ER site, do Applicable or Relevant and Appropriate Requirements (ARARs) apply?

No. ARARs only apply if risk assessment studies indicate there is a risk to human health and/or the environment. According to CERCLA Section 121(d), which mandates the degree of cleanup that must be achieved on CERCLA sites, response actions conducted under Sections 104 “Response Authorities” and 106 “Reimbursement” must at least attain all applicable or relevant and appropriate requirements. The lead agency (Navy) starts to identify ARARs during the scoping of the remedial investigation (RI)/feasibility study (FS). The lead agency will develop ARARs associated with remedial alternatives in the preparation of the FS, and refine the ARARs with the input of the regulatory agencies throughout the remedy selection in the record of decision (ROD); this includes removing ARARs for remedial alternatives that are not selected. If no remedial action is necessary to reduce, control, or mitigate exposure because the site or portion of the site is already protective of human health and the environment, ARARs do not apply.

- R5.** Do we calculate lead risks differently if the source is LBP, or if the source is from a combination of LBP and other sources (e.g. batteries)?

No. The calculation of exposure and risk to lead is the same regardless of the lead source.

- R6.** How are background levels for lead established?

Consistent with the *Navy Policy on use of Background Chemical Levels* (DON 2004), it is important to have a clear understanding of chemicals released from a site versus those that are present due to naturally occurring or anthropogenic (caused by humans) background conditions. It is important to establish base-wide background chemical levels. Navy guidance is available to assist with the evaluation of chemical data and soil characteristics to distinguish between soils that have been impacted by a site-related chemical release and those that have not (NAVFAC 2002).

FAQ – Land Use Controls (LUCs)

- L1.** If a site obtains a No Further Action (NFA) determination based on unrestricted use/unlimited exposure (UU/UE), are LUCs required to address future releases of LBP?

No. The NFA determination is based on the conclusion of the CERCLA risk assessment that no unacceptable CERCLA risk is present at the site, or when a response action reduces contaminant levels such that the site no longer poses an unacceptable CERCLA

risk. Once an NFA determination is made, the presence of lead, regardless of the source, does not trigger a LUC because it poses no unacceptable CERCLA risk. Although the presence of LBP on structures could result in the future releases of LBP to the environment, the Navy recommends managing lead paint in-place and performing preventive maintenance to keep painted surfaces from deterioration (NAVFAC 2004). The condition of LBP on these assets is managed under real property maintenance by the facility's PWD, not through LUCs implemented under CERCLA. However, if a future release of LBP to the environment does occur, addressing the release under CERCLA notwithstanding any previous NFA determination may be necessary.

FAQ - Five-Year Review Issues

F1. Should LBP be considered during Five-Year Reviews?

In accordance with the Department of the Navy (DON) 5-Year Review Policy (DON 2011), lead, from LBP or any source, should be considered during CERCLA 5-year reviews if a new requirement is promulgated, it is determined to be an ARAR, and it impacts the protectiveness of the CERCLA remedy implemented at a site. Under the National Contingency Plan, if a new requirement is promulgated after ROD is signed, it must be attained **ONLY** when (1) the requirement is determined to be applicable or relevant and appropriate, and (2) it is necessary to ensure that the remedy remains protective, see 40 CFR 300.430(f)(ii)(B)(1). Thus, any new requirement promulgated post-ROD that would have been an ARAR should be examined to ensure that the remedy is still protective. If the remedy is still protective, it would not have to be modified, even though it does not meet the new requirement.

Evaluation of complete exposure pathways and current and future land use should be considered prior to performing additional sampling, analysis, or risk calculation. For example, if lead was documented to be associated with an ER site, and the final remedy for the site was a soil cap with appropriate land use controls; no additional sampling, analysis, or risk calculation would be necessary because there is not a complete exposure pathway and the remedy is still protective.

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