

FINAL CONCEPT PAPER
DISCOVERY OF HISTORICAL RELEASES SUBCOMMITTEE
JUNE 2, 2021

I. SUMMARY

This committee was charged to evaluate the means by which the discovery of historical releases is defined. Provided below are our assumptions and proposed definitions of “discovery” and “historical release.” We have also provided examples and scenarios of situations that are, and are not, “discovery of a historical release.”

II. ASSUMPTIONS

- Definition of “release” is the definition in PA 20-9 (section 15(6)) (which specifically calls out 2 types of anthropogenic background as not a “release”)
- The presence of naturally occurring substances is not a release.
- All releases are either “historical” or “new”
- Not all discovered historical releases will be reportable
- Not all discovered historical releases will require remediation
- Some historical releases may require reporting, but not remediation by the person who reported (e.g., downgradient property owner)
- Some historical releases may require remediation, but not reporting (e.g., immediate removal actions, low risk sites)
- Additional information/investigation may be needed after discovery to determine if a release is “reportable” or requires remediation
- A report of a release may be withdrawn, based on obtaining additional information
- Some historical releases will pose a threat to human health/environment that requires reporting by others to the creator/maintainer or the DEEP if creator/maintainer does not (akin to the current “significant environmental hazard” reporting obligations, which we suggest be incorporated into this new program)
- Placement of historical fill may meet the definition of “historical release” but should be treated differently under the reporting and cleanup obligations. In particular, we are concerned that discovery of historical fill not require extensive characterization/investigation, unless necessary to protect human health and the environment.
- Releases at residential properties (1-4 family) should be treated differently under the reporting and cleanup obligations.
- LEP program will still be in effect - but will require revisions so as to not discourage due diligence using LEPs
- SCGD and RSRs will be supplemented/replaced by these regulations or other regulations/guidance specific to release-based program
- All releases (both historical and new) will be subject to these new Release-based regulations for purposes of remediation (if not reporting)
- There may be other statutory/regulatory programs that require the investigation/remediation/reporting of historical releases that are otherwise exempt or not covered by this new released-based program (e.g., TSCA, RCRA Corrective Action, Brownfields).
- Historical releases will be discovered through a variety of ways, not necessarily through site-wide investigation, as has been the case under the Transfer Act

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III. DEFINITIONS

Definition of a Release from PA 20-9

(6) "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into or onto the land and waters of the state, not authorized under title 22a of the general statutes, of oil or petroleum or chemical liquids or solids, liquid or gaseous products or hazardous waste as defined in section 22a-448 of the general statutes. "Release" does not include automotive exhaust or the application of fertilizer or pesticides consistent with their labeling;

Subcommittee Definition of a Historical Release

"Historical release" means the presence of oil or petroleum or chemical liquids or solids, liquid or gaseous products, or hazardous waste (as defined in section 22a-448 of the general statutes) in, on or under the land and waters of the state as a result of a release, as defined herein. "Release" does not include the presence of naturally occurring substances, the application of fertilizer or pesticides consistent with their labeling, or the presence of substances found at concentrations consistent with anthropogenic background.¹

"Naturally occurring substance" means an element, compound or material which is already present in the environment (soil, water, air) and in forms or concentrations that have not been directly altered by human activity.

"Anthropogenic background" means those levels of oil or petroleum or chemical liquids or solids, liquid or gaseous products that are not attributable to a specific release and which are:

- a. attributable to atmospheric deposition of industrial process or engine emissions and are ubiquitous and consistently present in the environment;
- b. releases to groundwater from a public water supply system;
- c. petroleum residues that are incidental to the normal operation of motor vehicles;
- d. Constituents of concrete and breakdown of concrete; or
- e. Natural breakdown of bituminous concrete in the state of its intended purpose in the absence of mechanical removal, landfilling, etc.

Note: For both "naturally occurring substances" and "anthropogenic background" we strongly suggest that the regulations set out concentrations for common constituents that will represent a rebuttable presumption that the constituents found are either "naturally occurring substances" or "anthropogenic background."

¹ Legislative changes may be needed to codify these additional exemptions.

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Subcommittee Definition of Discovery of a Historical Release

“Discovery” means obtaining knowledge of a historical release, which is:

- (a) actual knowledge; or
- (b) constructive knowledge, which is knowledge that could be obtained by exercising the degree of care which a person would exercise in the same or similar circumstances, taking into account any specialized knowledge or training possessed by such person.

Note: It may be helpful to clarify that the “who” “discovers” a historical release may not be the creator/maintainer, and the implications of that discovery. The issue of discovery by someone who is not the creator/maintainer could be addressed through the reporting requirements.

Events or circumstances that might lead to the discovery of a historical release:

- Due diligence for a transaction involving the property, e.g., Phase II sampling following Phase I site assessment
- Trenching for utility corridor
- Tank removal
- Excavation for construction or landscaping
- Reports or observations of
 - impacts on the property (e.g., soil, groundwater, surface water, sediment, soil vapor, indoor air)
 - impacts from or on neighboring property
 - sheen on surface water
 - non-aqueous phase liquid (i.e., free product)

IV. EXAMPLES

Examples of discovery of a historical release (i.e., actual knowledge):

- Results of laboratory analysis of soil, groundwater, sediment, or soil vapor indicating concentrations of substances above the laboratory reporting limit that meet the definition of “historical release” (i.e., not naturally occurring, properly applied pesticides, anthropogenic background)
- Presence of non-aqueous phase liquid (i.e., free product)

Examples that may NOT generally constitute discovery of a historical release, unless accompanied by additional “lines of evidence” of a release. NOTE: one of these examples, or several of these examples taken together, might constitute sufficient lines of evidence that amount to “constructive knowledge,” taking into account specialized knowledge or training:

- Field screening indicating presence of volatile organic compounds, petroleum hydrocarbons, or metals
- Anecdotal reports of historical disposal or releases

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- Staining of soil or other organoleptic evidence (e.g., odors)
- Staining of concrete floors/pits
- Sheen on surface water
- Dead or distressed vegetation
- Presence of paint chips or other building materials (e.g. caulk) on ground next to building
- Indoor air samples
- Discrepancy in inventory/purchase records
- Observations of asphalt, coal, slag, solid waste, ash, or other non-native materials
- Site history, e.g., aerial photographs, Sanborn maps

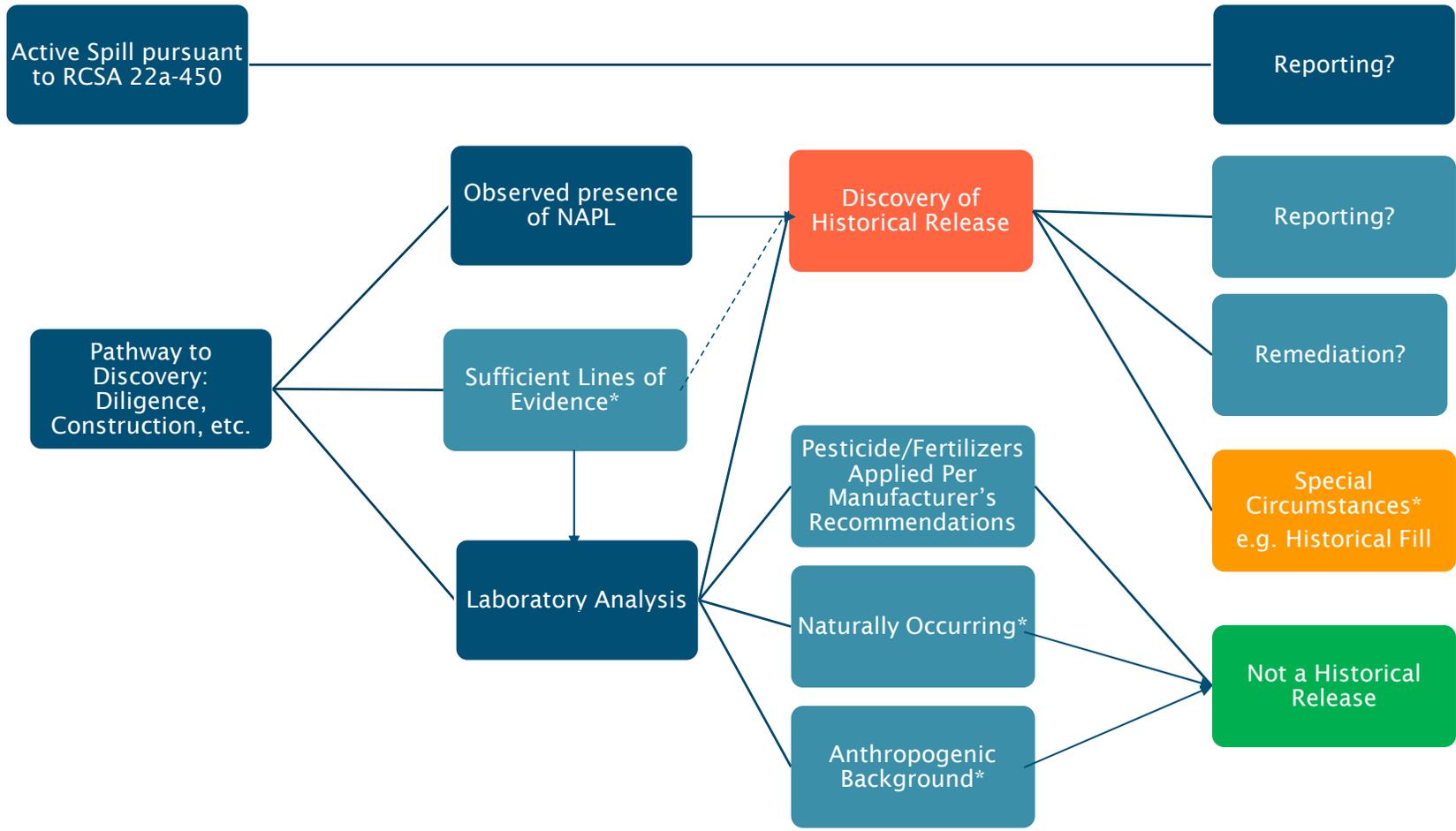
If one of the above circumstances existed, the following would be examples of other actions that might be expected to be undertaken to refute the “constructive knowledge” of a release, depending on the circumstances:

- Field analysis of stained soil or soil in location of dead/distressed vegetation
- Taking samples of soil or groundwater for laboratory analysis
- Examination of the concrete floor for evidence of a pathway to soil
- Further inquiry into anecdotal report of historical release, e.g., inquiry into the source of the information (disgruntled employee? Respected member of facility staff)

Examples of historical releases that we do not think should require reporting/remediation and/or should be subject to special handling/circumstances (we have not excluded them, because they are in fact “releases”). Legislative changes may be needed to codify these exemptions and/or circumstances.

- Historical fill (that is not “clean fill”)
- Presence of substances in groundwater from upgradient source (may require reporting or mitigation to protect human health, but should not require remediation by impacted property owner.
- Interior spills with no release to soil/groundwater/surface water
- Releases that involve farm dumps or other solid waste disposal areas (permitted or otherwise) regulated by the solid waste program.
- Discovery of historical releases in public right of way during infrastructure installation/repair (e.g., akin to the MCP Utility-Related Abatement Measure)
- Discovery of historical releases in public roadway (see above)
- Discovery of historical releases on a residential (1-4 units) property

DISCOVERY OF A RELEASE – FLOW CHART



Legend:

* Definition provided in concept paper