From:	McIlheran, Adam S - DNR
To:	Amundson, Alex
Cc:	Prasad, Narendra M; Fassbender, Judy L - DNR; Endsley, Erin A - DNR; Mylotta, Pamela A - DNR
Subject:	Review of 2/20/2025 WEC Draft SOP for Substation Retirements
Date:	Monday, April 14, 2025 3:51:00 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png WEC SubStation SOP 14APR25 Draft with Comments.docx WEC SubStation SOP Attachment 14APR25 Draft with Comments.docx

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Alex,

DNR has completed a review of the WEC SOP Draft version received on 2/20/2025. Comments and suggested revisions are in the attached document version for the SOP and accompanying table.

Main themes of the SOP use and submittal process are:

- Creation of a MIO SSRCL justification/application document, a copy of which would be submitted along with the SOP for any site the SOP is applied to, per listed criteria and in which the MIO SSRCL is proposed to be used at the site. This would be submitted and approved by DNR prior to final version of SOP being approved by DNR.
- Common reporting requirements for all sites that are to follow the SOP and creation of a checklist (perhaps based on the SOP attachment table) or site summary cover letter submitted with the discharge notification for each site, stating how the site meets criteria to use the SOP and the Tier the site is proposed to follow. Using this process would facilitate DNR review of SOP applicability and minimize review time for adherence to NR 700 code requirements for specific sites.

In addition, SOP tier naming and format should be revised to better reflect the intention of using NR 708 process for efficient review of Tier I & II sites and NR 716-726 for Tier III sites.

Once you have reviewed this latest version and comments, feel free to give me a call if you have any questions or clarifications are needed for incorporating the changes or in creating the MIO SSRCL justification document. A technical assistance form and fee ($1050 for approval of Site-Specific Soil Cleanup Standard) should be included when submitting that document for review and approval. As noted in the SOP comments, the document should be a brief and concise summary for the justification of the use of 500 ppm as an site-specific RCL for MIO using the data and conclusions in documents previously submitted and discussed as part of SOP development.

Regards,

Adam McIlheran
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DRAFT

Standard Operating Procedure

Electrical Substation Retirement
Investigation, Remediation and Reporting Protocol
2025

The purpose of this Standard Operating Procedure (SOP) is to document the process for the investigation, remediation and Wisconsin Department of Natural Resources (WDNR) reporting protocol for WEC Energy Group (WEC) substation retirements.

This SOP provides salient background information, the overall objective and a description of a multi-tier process for the investigation, remediation and reporting of substation retirements.

1.0 BACKGROUND

WEC electrical substations are typically fenced operating facilities constructed at minimum one foot above the surrounding area that contain a control house or power distribution center (PDC), power transformers, and various switching, protection and control equipment. The substations may also be enclosed by structural walls or buildings.

Select substation equipment contains mineral insulating oil **(MIO).** This MIO-containing equipment often includes, but is not limited to, transformers, circuit breakers, reclosers, capacitor banks, and voltage regulators. For older equipment, the MIO may contain or may have previously contained polychlorinated biphenyls (PCBs). Most new circuit breakers and reclosers do not contain oil. The majority of equipment containing MIO with PCBs has either been replaced or refilled with non-PCB MIO.

MIO is a non-volatile insulating oil consisting primarily of aliphatic hydrocarbons in the C11 - C33 range and is used for its dielectric, cooling and other beneficial properties in electrical equipment. MIO is a highly-refined petroleum hydrocarbon product similar to food-grade mineral oil and is stable at high temperatures. The MIO mixture is relatively immobile in the subsurface and partitioning to groundwater or other media is typically negligible due to the mineral oil's high soil sorption coefficient, low water solubility and low vapor pressure.

Over time, WEC substations are retired, often on a time-critical basis. MIO and other soil impacts may be encountered during these activities, particularly at older substations. These impacts are typically the result of incidental, low volume MIO releases over time. If painted structures are present at the site and the paint surfaces are deteriorated (i.e., flaking), lead-based paint (LBP) impacts in surface soils may also be encountered during retirement activities. Due to the many similarities in the constituents of concern, the nature and extent of impacts, investigation and remediation methods, equipment configuration and other factors, retirement activities at most substation sites are typically very similar.

2.0 SOP OBJECTIVE

This SOP's objective is to establish a more efficient and streamlined process for investigating, remediating, and reporting for WEC substation sites undergoing retirement that allows for maintaining time-sensitive, critical-path construction schedules while satisfying applicable WDNR regulatory requirements.

3.0 MULTI-TIER PROCESS DESCRIPTION

3.1 Process Establishment

Three tiers of investigation, remediation and reporting have been established to meet the above objective.

- Tier 1 - Response Action - NR 708 Reporting
- Tier 2 - Remedial Action - Streamlined NR 700 Reporting
- Tier 3 - Remedial Action - Standard NR 700 Reporting

Commented [AM1]: Case closure under NR 708 is a less complex and time-consuming process for both the RP and the DNR than closure under NR 726. Since Tier 1 and Tier 2 are structured so that closure under NR 708 is possible and efficiency is a goal of the SOP, consider renaming the Tiers in such a way to reflect their different pathways to closure, such as:
Tier 1- Response Action - NR 708 Reporting & Closure
Tier 2- Response Action - NR 700 Reporting/ NR 708 Closure
Tier 3- Response Action - NR 700 Reporting & Closure

The tier of investigation, remediation and reporting will be site-specific and established based on the following types of information (and subsequent initial subsurface investigation, if warranted):

- Age of the substation;
- Volume of known soil impacts above state regulatory standards;
- Current and historical equipment MIO sampling data (PCB content);
- Visual observation of potential impact s (e.g., MIO ground surface staining, flaking paint on structures or equipment);
- Presence of unusual or complex site conditions; and,
- Previous environmental assess-ment information.

If the above information does not indicate a release or potential release, no further assessment will be conducted. At WEC's discretion, sampling may be conducted for soil management and disposal purposes.

If a release or potential release is identified, an initial subsurface investigation will be conducted to further assess the extent of impacts. This initial investigation will include limited sampling to establish whether MIO, PCB and/or LBP soil impacts are present and the physical character of the subsurface (e.g., shallow soil physical characteristics and, if necessary, the elevation of the surficial water bearing unit).

In most cases, the initial subsurface investigation sampling will be conducted in areas of apparent or suspected surface staining and the vicinity of MIO-containing equipment soil samples will be analyzed for PCBs, and DRO as MIO if VOCs/PAHs are not analyzed. In areas of equipment or structures with flaking paint, soil samples will be collected for lead analysis.

If a release is confirmed by the initial subsurface investigation sampling, WDNR will be notified (via either the Spills Hotline or Form 4400-225) and the risk level will be established (i.e., "low-risk site" or "non-low-risk site"). The site will be considered a "low-risk" site if all of the following conditions are present:

- Soil impacts greater than WDNR residual contaminant levels (RCLs) or MIO SSRCL are confined to the site property;
- Impacts greater than WDNR RCLs or MIO SSRCL are confined to surficial soils (0 - 4 ft. bgs);
- Groundwater was not encountered within the zone of soil impacts greater than WDNR RCLs or MIO SSRCL;
- The impacted soil is not located within a floodplain; or the substation site can be demonstrated to show that the design and construction are above the 100 year flood plain (WEC's design criteria for all substations is to construct one foot above the 100 year flood plain); and
- The impacted soil at the site is not located adjacent and/or upgradient of a wetland, critical habitat area or navigable river, stream, lake, pond or flowage.

Most substation sites will be designated low-risk sites based on WEC experience and the above conditions.

Low-risk sites will follow the Tier 1, ~~or~~ or Tier 2 process described below. The Tier 1 and Tier 2 classification will be based on the anticipated remediation volume. The Tier 1 and Tier 2 implementation processes will be differentiated primarily by the scope of WDNR reporting. Sites that are not classified as low-risk sites (i.e., "non-low-risk sites") will follow the Tier 3 process.

Notification requirements common to all sites proposed to follow the SOP: Included with the discharge notification form will be a cover page summary or checklist indicating how the site meets criteria to follow the SOP, proposed use of the MIO SSRCL for that site, and which Tier criteria the site meets.

For all sites which the use of the SOP is requested, a copy of the SOP, MIO SSRCL document, and DNR MIO SSRCL approval letter is to be attached to all submittals.

The three-tier process is summarized in Attachment A and described in the following sections.

Commented [AM2]: This document should be created and submitted to DNR for review along with a $1050 review fee now, so it can be approved with the SOP, and then submitted when it will be used for specific sites. Review and approval of the SSRCL would not then be needed for each site (nor a separate fee for each site), as long as the site fits SOP criteria.

The document should be a brief and concise summary for the justification of the use of 500 ppm as an site-specific RCL for MIO using the data and conclusions in documents previously submitted and discussed as part of SOP development.
The document should cite the previously submitted reports, data, and DNR decisions applicable to MIO found under BRRTS# 07-41-582805, such as AC99 11/10/2022, AC99 3/14/2023, AC99 5/2/2024.

Commented [AM3]: Since SSRCL document is to be added to the SOP, revise so that all attachments are correctly referenced and named accordingly.

3.2 Tier 1 - Response Action - NR 708 Reporting

Commented [AM4]: See page 2 comment

The Tier 1 (Response Action) process will generally be conducted pursuant to NR 708.05(3) (non-emergency immediate action).

Site Conditions

The Tier 1 process will be implemented for low-risk sites with an estimated soil remediation volume of approximately 250 cubic yards or less and for which no WDNR "continuing obligations" or listing on DNR online database as having residual contamination above applicable standards. ~~apply or inclusion on the WDNR online database of contaminated sites would not be required~~.

Commented [AM5]: All sites are on the DNR database, however NFA sites do not have a notification on RR Sites Map that there is residual contamination onsite above soil or groundwater standards. If there was, that would be a continuing obligation and not qualify for NFA.

Investigation

The Tier I investigation will be conducted to refine the horizontal and vertical extent of MIO, PCBs (if applicable) and LBP impacts established during the initial subsurface investigation. Typically, the investigation of MIO impacts will consist of Geoprobe® soil borings advanced to depths of approximately 5 to 10 feet bgs and the investigation of LPB impacts will consist of soil boring borings advanced to depths up to 3 feet bgs. Two to three soil samples will typically be collected for laboratory analysis from each soil boring location. In limited access areas, hand auger borings may be advanced in lieu of Geoprobe® borings. In some cases, soil sampling may instead be completed following excavation with samples being collected at the excavation limits.

Soil samples collected to assess MIO impacts will be analyzed for PCBs, using analytical method USEPA Method SW 846 3540C and DRO as MIO (C10-C28). PCBs would not be included for analysis if it can be shown or documented that they were not in any MIO used or stored onsite. Soil samples collected to assess LBP impacts will be analyzed for total lead (USEPA Method SW 846).

Commented [AM6]: State the DRO analytical method, to be consistent.

Select soil samples may be analyzed for toxicity characteristic leaching procedure (TCLP) benzene, TCLP Resource Conservation and Recovery Act (RCRA) metals, and/or other target analytes for waste characterization (disposal profiling), as required by the applicable disposal facility.

Remediation

Remediation will generally consist of excavation and off-site disposal at a licensed landfill. The limits of impacted soil removal will be based on the investigation results and the following cleanup levels, as applicable:

MIO	PCBs (Aroclor-specific) Less than WDNR non-industrial direct contact RCLs.
	PCBs (total) Less than Groundwater Residual Contaminant Levels (GWRCLs).
	DRO Less than 500 mg/kg.
LBP	Lead (total) Less than BTV (Background Threshold Value). If above BTV, volume is insignificant, horizontal and vertical delineation of soil <BTV, or groundwater sample <Preventative Action Limit (PAL) will need to be demonstrated

Confirmation soil samples will be collected from the base and sidewalls of the soil removal excavations to document that the above cleanup levels are met. A minimum of one base sample and four sidewall samples will typically be collected with no greater distance than 15 feet between samples or any other reasonable distance to be determined depending on the size of the excavation (unless physical or safety constraints are present). Confirmation soil samples shall be collected as discrete (individual) samples. Composite sampling methods will not be used for confirmation samples.

For excavations of PCB remediation waste (PCBs > 1 mg/kg), PCB composite sampling will be conducted in general accordance with Subpart O of 40 CFR 761. In general, this sampling will consist of a composite of nine aliquots within each 3-meter (10-foot) by 3-meter (10-foot) grid.

The excavated soil will be disposed as a non-TSCA waste (at a licensed Subtitle D landfill facility) if the PCB concentration is less than 50 mg/kg in accordance with the June 10, 2014 EPA "Risk-Based Approvals to Dispose of Polychlorinated Biphenyl (PCB) Remediation Waste" for Utility Solid Waste Activities Group (USWAG) member companies. If PCB concentrations are greater than or equal to 50 mg/kg, the soil will be disposed as a TSCA-regulated waste in accordance with 40 CFR 761.61.

WDNR Communications and Reporting

WDNR communication and reporting for the Tier 1 process will consist of the following 3 steps (in chronological order):

- WDNR notification pursuant to NR 706.05 via the Spills Hotline or, using "Notification For Hazardous Substance Discharge (Non-Emergency Only)" (Form 4400-225). If notification is done via email, notification of consultant, results of the initial subsurface investigation and "WEC SOP Tier 1 (Response Action)" will be noted in the comments section of the form.
- Update WDNR PM or Regional Spills Coordinator via email upon completion of response action field activities (investigation and remediation).
- Submit documentation ("No Further Action" letter) pursuant to NR 708.05(6). This will be accompanied by WDNR Technical Assistance form 4400-237 with the appropriate fee ~~for approval of a Site-Specific Soil Cleanup Standard (use of the MIO SSRCL)~~ and request for a written No Further Response Action (NFA) determination from WDNR pursuant to NR 708.09.

Commented [AM7]: Revise: See the common reporting requirements added on page 3 for what to include with the Discharge Notification form.

Remediation of soil classified as a PCB remediation waste under TSCA (i.e., PCBs as found in impacted soil > 1 mg/kg) will be conducted pursuant to 40 CFR 761.61(b) "performance-based disposal." EPA notification, reporting, and approvals are not required for performance-based disposal. As Applicable, it is understood that WDNR will conduct any EPA notifications deemed necessary pursuant to RR 786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement")

Commented [AA8]: This was re added. Ran into this scenario at Glendale SS and received clarification the WDNR will conduct this notification

3.3 Tier 2 - Remedial Action - Streamlined NR 700 Reporting

Commented [AM9]: See page 2 comment regarding tier naming.
Also, check/correct the Attachment B Summary Table so that Tier 2 sites are closed through NR 708 NFA and not NR 726 with a closure packet. The Tier 2 reporting process in the SOP text is correct.

The Tier 2 (Remedial Action - Streamlined NR 700 Reporting) process will be conducted in accordance with NR 716 through NR 726, except that WDNR reporting requirements will be streamlined, as described below.

Site Conditions

The Tier 2 process will be implemented for low-risk sites with an estimated soil remediation volume of greater than approximately 250 cubic yards and no WDNR "continuing obligations" or listing on the WDNR online database. An adequate number of samples will be collected to show residual soil impacts are insignificant in volume. Concurrence between the WDNR and WEC will be determined on a case by case basis for sites to meet Tier 2 criteria.

Investigation

The Tier 2 investigation procedures will be the same as the Tier 1 procedures described in Section 3.2.

Remediation

The Tier 2 remediation procedures will be the same as the Tier 1 procedures described in Section 3.2.

WDNR Communications and Reporting

WDNR communication and reporting for the Tier 2 process will consist of the following three submittals (in chronological order):

- WDNR notification pursuant to NR 706.05 using "Notification For Hazardous Substance Discharge (Non-Emergency Only)" (~~Form~~ Form 4400-225). Notification of consultant, results of the initial subsurface investigation and "WEC SOP Tier 2 (Remedial Action - Streamlined NR 700 Reporting)" will be noted in comments section of the form.
- Site Investigation, Remedial Action Options and Remedial Design Report pursuant to NR 716.15 , NR 722.13, and NR 724.09 with Form 4400-237 and appropriate fee for WDNR concurrence site meets Tier 2 criteria of SOP and use of the Site-Specific Soil

Commented [AM10]: See the common reporting requirements added on page 3 for what to include with the Discharge Notification form.

Cleanup Standard (MIO SSRCL).

- Construction Documentation Report pursuant to NR 724.15 and Form 4400-237 with a No Further Action Request and appropriate fee for WDNR concurrence the site meets criteria for no further action with no continuing obligations. ~~or inclusion on the WDNR residual contamination database.~~

Remediation of soil classified as a PCB remediation waste under TSCA (PCBs > 1 mg/kg) will be conducted pursuant to 40 CFR 761.61(b) "performance-based disposal." EPA notification, reporting, and approvals are not required for performance-based disposal. As applicable, it is understood that WDNR would conduct any EPA notifications deemed necessary pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement").

3.4 Tier 3 - Remedial Action - Standard NR 700 Reporting

The Tier 3 (Remedial Action - Standard NR 700 Reporting) process will be conducted in accordance with NR 716 through NR 726.

Site Conditions

The Tier 3 process will be implemented for non-low-risk sites with or without WDNR "continuing obligations". ~~or inclusion on WDNR online database.~~

Investigation

The Tier 3 investigation procedures will be documented in a Site Investigation Work Plan pursuant to NR 716.09. In addition to the Tier l procedures for investigating MIO and LBP soil impacts, the investigation procedures would be supplemented, as necessary, to address non-low- risk site considerations (e.g., groundwater, historic fill material, and/or impacts from other constituents of concern or non-typical site conditions). Degree and extent of all contaminants of concern will be defined to applicable RCLs, SSRCL, or BTVs as appropriate for contaminant sources.

Remediation

The Tier 3 remediation process will be consistent with the Tier 2 process described in Section 3.3, with following adjustments to the cleanup levels, as applicable:

MIO	PCBs (Aroclor-specific) Less than WDNR non- industrial or industrial direct contact RCLs or Performance Standards (capping)
	PCBs(total) Less than TSCA regulatory level (1 mg/kg) or self-implementing cleanup levels [40 CFR 761.61(a)]
	MIO SSRCL of 500 ppm DRO could only be used if/where MIO impacts are distinct and not co-mingled with other discharges/sources of VOCs/PAHs.

Commented [AM11]: Note: Fee would be a technical assistance fee if you desire written concurrence the site meets Tier 2. SIR fee would apply if you want it reviewed to code requirements. A request with fee would not be needed for use of SSRCL if site meets SOP criteria, since the SSRCL will be approved with approval of the SOP prior to implementation of the SOP for all sites.
Note: SIR/RAOR should reference MIO SSRCL where appropriate.

Commented [PM12]: Could they just write this similar to how they described the request under Tier 1 sites?

Commented [AM13]: See page 2 comment regarding Tier naming.

LBP	Lead (total) Less than WDNR non-industrial or industrial direct contact RCLs or Performance Standards (capping)

As necessary for other cleanup components (e.g., historic fill material/or and commingled petroleum, solvent and/or metals impacts), cleanup levels will include WDNR non-industrial or industrial direct contact RCLs, protection of groundwater RCLs, and/or Performance Standards (capping) depending on the ongoing land use classification of the parcel, and include investigation parameters and methods relevant to additional sources of contamination on the site.

Commented [PM14]: And will include investigation parameters and methods relevant to additional sources of contamination on the site.

WDNR Communications and Reporting

WDNR communication and reporting for the Tier 3 process will consist of the following submittals (in chronological order):

- WDNR notification pursuant to NR 706.05 using "Notification For Hazardous Substance Discharge (Non-Emergency Only)" (Form 4400-225) with summary page or checklist confirming site meets and will follow SOP criteria and use of MIO SSRCL.
- Consultant hiring notification letter.
- Site Investigation Work Plan pursuant to NR 716.09.
- Site Investigation and Remedial Action Options Report pursuant to NR 716.15 and NR 722.13.
- Remedial Design Report pursuant to NR 724.09.
- Construction Documentation Report pursuant to NR 724.15.
- Case Closure form pursuant to NR 726.09. This will ~~be~~ include a WDNR fee submittal for WDNR to issue a written Case Closure determination (with or without continuing obligations).
- Any other submittals, reviews, or applicable Ch. NR 749 review fees deemed necessary by DNR or EPA prior to achieving case closure, dependent upon site-specific conditions for each Tier 3 site and applicable regulatory requirements.

Commented [AM15]: See the common reporting requirements added on page 3 for what to include with the Discharge Notification form.

Commented [AM16]: Note: SIR/RAOR should reference MIO SSRCL where appropriate.

WEC understands the need for WDNR concurrence, however, depending on timing of retirements WEC may move ahead with cleanup and remediation prior to concurrence with WDNR understanding the potential need for further investigation and remediation.

Commented [PM17]: Should they include a statement about including appropriate review fees in accordance with Ch. NR 749, if DNR reviews are requested prior to closure submittal review?

Remediation of soil classified as a PCB remediation waste under TSCA (PCBs > 1 mg/kg) will be conducted pursuant to 40 CFR 761.61(b) " performance- based disposal" or pursuant to 40 CFR 761.61(a) "self-implementing on-site cleanup and disposal." Self-implementing on- site cleanup and disposal notification/reporting would include: "Notification of Self-Implementing Cleanup" to EPA pursuant to 40 CFR 761(a)(3) and a post-implementation "Cleanup Completion Summary Report" to EPA. As applicable, it is understood that WDNR would conduct any EPA notifications deemed necessary pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement").

*****

~~5.0 References~~

1. ~~Chemical Characterization of Transformer Mineral Insulating Oils. Isaac R. Kaplan, Jimmy Rasco, and Shan-Tan Lu. *Environmental Forensics,* 11:117–145, 2010.~~
2. ~~Method for Determining Diesel Range Organics, Wisconsin Department of Natural Resources, Publication PUBL-SW-141, September 1995.~~
3. ~~Method AK 103. For Determination of Residual Range Organics. Version 04/08/02, Alaska Department of Environmental Conservation.~~
4. ~~ISO 16703:2004, Soil quality -- Determination of content of hydrocarbon in the range C1Oto C40 by gas chromatography, 2004.~~
5. ~~Transformer Oil Spill Former Bronnleys Factory Radstone Road, Brackley, Northants, NN13 5AU. Environmental Assessment Report SLR Ref: 402.04531.00002, July 2014.~~
6. ~~Development of Human Health PCLs for Total Petroleum Hydrocarbon Mixtures. Texas Commission on Environmental Protection. PublicationRG-366/TRRP-27, January 2010.~~
7. ~~Duval, M., and Lamarre, C. 1977. The characterization of electrical insulating oils by high-performance liquid chromatography. IEEE Transactions on Electrical Insulation, EI-12(5): 340-348. doi:10.1109/TEI.1977.298040.~~
8. ~~Toxicological Profile for Total Petroleum Hydrocarbons (TPH). Section 3, Identity and Analysis of Total Petroleum Hydrocarbons. Agency for Toxic Substances and Disease Registry. September, 1999.~~
9. ~~A Forensic Approach for Assessing Modes of Subsurface Petroleum Releases. John A. Anton, and Gil Oudijk, 2016. Journal of Environmental Protection, 2016, 7, 312-322.~~
10. ~~Soil Residual Contaminant Level Determinations Using the U.S. EPA Regional Screen Level Web Calculator. https://dnr.wi.gov/files/PDF/pubs/rr/RR890.pdf~~

DRAFT ATTACHMENT A

ELECTRICAL SUBSTATION RETIREMENT - INVESTIGATION, REMEDIATION, AND REPORTING PROTOCOL SUMMARY

Tier	Site Conditions, Investigation, and Remediation	WDNR Communications and Reporting	
Tier 1: Response Action - NR 708 Reporting	• Low Risk Site (1). No other sources or impacts of VOCs/PAHs besides MIO. • ≤ 250 cubic yards of impacted soil • MIO (PCB) Cleanup Level: < WDNR non-industrial direct contact RCLs (Aroclor-specific) • MIO (Total PCB) Cleanup Level: < WDNR GWRCL • MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-28) (2) • Lead Cleanup Level: < WDNR BTV • non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval (3)] and/or TSCA Disposal (≥50 mg/kg)	NR 706.05(1) NR 708.05(3)(3) NR 708.05(6)(6) NR 708.09 40 CFR 761.61(b)	Notification via Spills Hotline or Form 4400-225 (SOP Tier I Response Action and consultant notification noted in comments section) Response Action (Non-Emergency Immediate Action) Update correspondence with WDNR PM Documentation/Final Report (NR 708 "NFA" letter) (WDNR fee submittal for written No Further Response Action from WDNR) WDNR issues No Further Response Action letter Performance-based disposal (5)
Tier 2: Remedial Action - Streamlined NR 700 Reporting	• Low Risk Site (1). No other sources or impacts of VOCs/PAHs besides MIO. • > 250 cubic yards of impacted soil (or other volume as approved by WDNR) • MIO (PCB) Cleanup Level: < WDNR non-industrial direct contact RCLs (Aroclor-specific) • MIO (Total PCB) Cleanup Level: < WDNR GWRCL • MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-28) (2) • Lead Cleanup Level: < WDNR BTV • non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval (3)] and/or TSCA Disposal (≥50 mg/kg) • No WDNR "Continuing Obligations" (4)	NR 706.05(1), NR 716.09 NR 716.14, NR 716.15, NR 722.13, NR 724.09 NR 724.15 NR 726.09 40 CFR 761.61(b)	Notification [and results of initial subsurface investigation, consultant hiring notification and Tier 2 site investigation standard operating procedure] Site Investigation, Remedial Action Options, and Remedial Design Reports Construction Documentation Report and Case Closure Request form (WDNR fee submittal) WDNR issues Case Closure (with no "continuing obligations") Performance-based disposal (5)

Tier 3: Remedial Action - Standard NR 700 Reporting	• Non-Low-Risk Site **(1).** Other sources or impacts of VOC/PAHs onsite. • MIO (PCB) Cleanup Level: S WDNR non-industrial or industrial direct contact RCLs (Aroclor-specific) or Performance Standard (capping) ■ MIO (PCB) Cleanup Level: <TSCA regulatory level (1 mg/kg) or self-implementing cleanup levels [40 CFR 761.61(a)] ■ MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-28) (2) Can. • Lead Cleanup Level: ≤ WDNR non-industrial direct contact RCL or WDNR industrial direct contact RCL or Performance Standard (capping) • non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval **{3)]** and/or TSCA Disposal ((>50 mg/kg) ■ With or without WDNR "continuing obligations" (4)	NR 706.05(1) NR 716.09 NR 716.14, NR 716.15, NR 722.13 NR 724.09 NR 724.15 NR 726.09 40 CFR 761.61(b) or 40 CFR 761(a)	Notification (and consultant hiring notification) Site Investigation Work Plan Site Investigation and Remedial Options Report Design Report Construction Documentation Report Case Closure Request form (WDNR fee submittal) WDNR issues Case Closure (with or without "continuing obligations") Performance -based disposal (5) or Self-implementing on-site cleanup and disposal {6)

~~(1) Low-Risk Site Criteria: Soil impacts greater than WDNR residual contaminant levels (RCLs) are confined to the site property; soil impacts greater than WDNR RCLs are less than approximately 5 feet below ground surface (bgs); groundwater was not encountered within the zone of soil impacts greater than WDNR RCLs; the site is not located within a floodplain; and the site is not located adjacent to and upgradient of a wetland, critical habitat area, navigable river, stream, lake, pond, or flowage.~~

~~(2) **MIO (DRO) Analysis: Modified** DRO as MIO Method Used. Non MIO VOCs or PAHs interference cannot be present to use MIO SSRCL.~~

~~(3) **EPA/USWAG Risk-Based Approval:** June 10, 2014 "Risk-Based Approvals to Dispose of Polychlorinated Biphenyl (PCB) Remediation Waste" by EPA for Utility Solid Waste Activities Group (USWAG) member companies.~~

~~(4) **WDNR "continuing obligations":** Continuing obligation responsibilities and notifications pursuant to NR 727.05 and NR 725.07.~~

~~(5) **40 CFR 761.Gl(b), Performance-based disposal notification/reporting:** EPA/40 CFR 761 notification/reporting not required to implement. EPA notification by WDNR pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement"), as applicable.~~

~~(6) 40 CFR 761.Gl(a), Self-implementing on-site cleanup and disposal notification/reporting: "Notification of Self-Implementing Cleanup" to EPA pursuant to 40 CFR 761(a)(3). EPA notification by WDNR pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement"), as applicable. Post-implementation "Cleanup Completion Summary Report" to EPA.~~

~~10/03/2024~~

DRAFT ATTACHMENT B

ELECTRICAL SUBSTATION RETIREMENT - INVESTIGATION, REMEDIATION, AND REPORTING PROTOCOL SUMMARY

Tier	Site Conditions, Investigation, and Remediation		WDNR Communications and Reporting	
Tier 1: Response Action - NR 708 Reporting	▪ Low-Risk Site **(1)** No other sources or impacts of VOCs/PAHs besides MIO		NR 706.05(1)	Notification (~~MOA Response Action noted in comments section~~) (and consultant hiring notification)
	▪ ≤ 250 cubic yards of impacted soil			Update correspondence with WDNR PM
	▪ MIO (PCB) Cleanup Level: < WDNR non-industrial direct contact RCLs (Aroclor-specific)		NR 708.05(3)(3)	Response Action (Non-Emergency Immediate Action)
	▪ MIO (Total PCB) Cleanup Level: < WDNR GWRCL~~)~~			Update correspondence with WDNR PM
	▪ MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-28) **(2)**	➡	NR 708.05(6)(6)	Documentation/Final Report ("45-day letter report") (WDNR-fee submittal for written No Further Response Action from WDNR)
	▪ Lead Cleanup Level: < WDNR BTV		NR 708.09	WDNR issues No Further Response Action
	▪ non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval **(3)**] and/or TSCA Disposal (≥ 50 mg/kg)		40 CFR 761.61(b)	Performance-based disposal **(5)**
Tier 2: Remedial Action - Streamlined NR 700 Reporting	▪ Low-Risk Site **(1)** No other sources or impacts of VOCs/PAHs besides MIO		NR 706.05(1), NR 716.09	Notification [and consultant hiring notification ~~with site investigation standard operating procedure]~~
	▪ > 250 cubic yards of impacted soil (or other volume as approved by WDNR)			
	▪ MIO (PCB) Cleanup Level: < WDNR non-industrial direct contact RCLs (Aroclor-specific)		NR 716.14, NR 716.15, NR 722.13, NR 724.09	Site Investigation, Remedial Action Options, and Design Report
	▪ MIO (Total PCB) Cleanup Level: < WDNR GWRCL		NR 724.15	Construction Documentation Report
	▪ MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-C28) **(2)**	➡	NR ~~726.09~~708.09	WDNR-fee Submittal for written No Further Response Action from WDNR ~~Case Closure Request form (WDNR fee submittal)~~
	▪ Lead Cleanup Level: < WDNR BTV			WDNR issues No Further Response Action~~WDNR issues Case Closure (with no "continuing obligations")~~
	▪ non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval **(3)**] and/or TSCA Disposal (≥ 50 mg/kg)		40 CFR 761.61(b)	Performance-based disposal **(5)**
	▪ No WDNR "Continuing Obligations" **(4)**			
Tier 3: Remedial Action - Standard NR 700 Reporting	▪ Non-Low-Risk Site **(1)**		NR 706.05(1)	Notification (and consultant hiring notification)
	▪ MIO (PCB) Cleanup Level: ≤ WDNR non-industrial or industrial direct contact RCLs (Aroclor-specific) or Performance Standard (capping)		NR 716.09	Site Investigation Work Plan
	▪ MIO (PCB) Cleanup Level: < TSCA regulatory level (1 mg/kg) or self-implementing cleanup levels [40 CFR 761.61(a)]		NR 716.14, NR 716.15, NR 722.13	Site Investigation and Remedial Action Options Report(7)
	▪ MIO (DRO) Cleanup Level: < 500 mg/kg by DRO (C10-28) **(2)**	➡	NR 724.09	Design Report
	▪ Lead Cleanup Level: < WDNR non-industrial direct contact RCL or WDNR industrial direct contact RCL or Performance Standard (capping)		NR 724.15	Construction Documentation Report

Commented [AM1]: See comment regarding attachments in SOP text.

Commented [AM3]: With SOP applicability, MIO SSRCL use and Tier determination summary or checklist

Commented [AM2]: See page 2 of SOP for Tier naming comments

Commented [AM4]: Concurrence of MIO SSRCL use at this site and

Commented [AM5]: If any lead contamination remains it must be insignificant in volume and delineated <BTV vertically and horizontally. See comment pg7 SOP.

Commented [AM6]: With SOP applicability, MIO SSRCL use and Tier determination summary or checklist

Commented [AM7]: DNR written review/concurrence with submittals only if applicable fee sent

Commented [AM8]: Same as Tier 1 comment for this topic

Commented [AM9]: With SOP applicability, MIO SSRCL use and Tier determination summary or checklist

Commented [AM10]: Note 7: DNR or EPA may have additional reviews/fees dependent upon site-specific conditions for each Tier 3 site and applicable regulatory requirements.

	▪ non-TSCA Disposal [< 50 mg/kg per EPA/USWAG Risk-Based Approval **(3)**] and/or TSCA Disposal (≥ 50 mg/kg)	NR 726.09	Case Closure Request form (WDNR fee submittal)
	▪ With or without WDNR "continuing obligations" **(4)**		WDNR issues Case Closure (with or without "continuing obligations")
		40 CFR 761.61(b) or 40 CFR 761(a)	Performance-based disposal **(5)** or Self-implementing on-site cleanup and disposal **(6)**

(1) **Low-Risk Site Criteria**: Soil impacts greater than WDNR residual contaminant levels (RCLs) are confined to the site property; soil impacts greater than WDNR RCLs are less than approximately 5 feet below ground surface (bgs); groundwater was not encountered within the zone of soil impacts greater than WDNR RCLs; the site is not located within a floodplain; or the substation can be demonstrated to show that the design and construction are above the 100 year flood plain; and the impacted soil at the site is not located adjacent to and upgradient of a wetland, critical habitat area, navigable river, stream, lake, pond, or flowage.

(2) **MIO (DRO) Analysis**: Modified DRO as MIO Method Used. Non-MIO VOCs or PAHs interference cannot be present to use MIO SSRCL.

(3) **EPA/USWAG Risk-Based Approval**: June 10, 2014 "Risk-Based Approvals to Dispose of Polychlorinated Biphenyl (PCB) Remediation Waste" by EPA for Utility Solid Waste Activities Group (USWAG) member companies.

(4) **WDNR "continuing obligations"**: Continuing obligation responsibilities and notifications pursuant to NR 727.05 and NR 725.07.

(5) **40 CFR 761.61(b), Performance-based disposal notification/reporting**: EPA/40 CFR 761 notification/reporting not required to implement. EPA notification by WDNR pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement"), as applicable.

(6) **40 CFR 761.61(a), Self-implementing on-site cleanup and disposal notification/reporting**: "Notification of Self-Implementing Cleanup" to EPA pursuant to 40 CFR 761(a)(3). EPA notification by WDNR pursuant to RR-786 ("PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement"), as applicable. Post-implementation "Cleanup Completion Summary Report" to EPA.

~~(6)~~(7)

Commented [AM11]: See comment regarding Note 7 above.