Wisconsin State Laboratory of Hygiene
EHD NADP PO GENOP 005
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Mercury Deposition Network
Site Operations Manual

National Atmospheric Deposition Program

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Document Change History

Version	Description	Effective Date
OB3	Updated abbreviations list. Updated contacts. Updated outdated forms and figures.	10/30/2026
OB2	Scheduled review and terminology update.	08/2024
OB1	Updated for OnBase format and versioning.	01/2022
3.1	Updated WSLH Mercury Observer Form (MOF)	09/2019
3.0	Updated contact information to Wisconsin State Laboratory of Hygiene.	05/2019
2.3	Updated Tables 1, 3, 6, and 7. Updated Training information. Updated protocol for lid seal replacement. Updated FAQ to include statement about Thies sensor with ACM collector, special studies, and SC115 flash drive.	01/2017
2.2	Major revision from 2003 document.	03/2015

Abbreviations

AIRMoN	Atmospheric Integrated Research Monitoring Network *(no longer operating)*
AMNet	Atmospheric Mercury Network
AMoN	Ammonia Monitoring Network
CAL	Central Analytical Laboratory *(no longer used)*
FOF	Field Observer Form
FORF	Field Observer Report Form
HAL	Mercury (Hg) Analytical Laboratory *(no longer used)*
MDN	Mercury Deposition Network
MLN	Mercury Litterfall Network
MOF	Mercury Observer Form
NADP	National Atmospheric Deposition Program
NAL	NADP Analytical Laboratory
NED	Network Equipment Depot
NOS	Network Operations Subcommittee
NTN	National Trends Network
PDA	Personal Digital Assistant
PFN	PFAS – NTN Subnetwork
PO	Program Office
QA	Quality Assurance
QAAG	Quality Assurance Advisory Group
QC	Quality Control
SAES	State Agricultural Experiment Stations
SOP	Standard Operating Procedures
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WSLH	Wisconsin State Laboratory of Hygiene

Introduction

The Mercury Deposition Network (MDN) is the only long-term network for monitoring mercury in precipitation across the United States and Canada. The network began operation in 1994.

Each site in the network is configured with an automated precipitation collector and a rain gauge. Weekly composite samples are collected every Tuesday morning. Site operators follow standard operating procedures to ensure data comparability and representativeness throughout the network. All samples are shipped to the NADP Analytical Laboratory (NAL) at the Wisconsin State Laboratory of Hygiene in Madison, Wisconsin for analysis. Total mercury is reported for all samples.

Following review of the data for completeness and accuracy, data are made available on the NADP website. Data are flagged for equipment failure, sample mishandling, and contamination. A map indicating active and inactive MDN sites is available on the NADP website, as is the complete data record for each site in the network.

Quality Assurance/Quality Control (QA/QC) activities ensure integrity throughout the network. The U.S. Environmental Protection Agency (EPA) and U.S. Geological Survey (USGS) administer external QA programs as further checks of the network and its operation.

Site Selection and Site Re-location

Sites in the NADP networks are selected to quantify wet deposition in major physiographic, agricultural, aquatic, and forested areas within states, regions, and ecoregions. Sites are located away from urban areas and point sources of pollution, e.g., coal-fired power plants and mercury emitting sources. Siting criteria are presented in detail in the *NADP Site Selection and Installation Manual*. That document is available on the NADP website (http://nadp.slh.wisc.edu).

Should a site need to be re-located, the site sponsor should contact the NADP Program Office (PO) to ensure that the new location meets NADP siting criteria. Additional information regarding site re-location is available in the *NADP Site Selection and Installation Manual*.

Approved Equipment

Table 1 lists the equipment that has been approved by the NADP for use in the MDN network. Periodically, equipment is tested and evaluated for inclusion in the network. Additional information on the procedures for evaluating and approving new equipment is available on the NADP website. The NADP website should be consulted for the most current list of approved equipment. Questions regarding the list of approved equipment may be directed to the Site Support contact for the network. Contact information for each of the manufacturers, Site Support, and for the NADP PO is included in the Contact List section of this document.

Table 1. NADP Approved Equipment for use in the MDN.

Equipment	Manufacturer	Model Number
Precipitation collector	Aerochem Metrics, Inc.[1]	301 (modified*)
Precipitation collector	Loda Electronics Company[1]	2001 (modified*)
Precipitation collector	N-CON Systems	00-125-2 or 00-127TM
Rain gauge	ETI Instrument Systems, Inc.	NOAH IV
Rain gauge	OTT Hydromet	OTT NADP Pluvio
Rain gauge	OTT Hydromet	OTT Pluvio[2]
Rain gauge	OTT Hydromet	OTT Pluvio[2] – L and S
Rain gauge	Various	Remote Monitoring Module
Wind screen	NovaLynx	260-952 (Alter-Type), or equivalent

* modified collector; wet-side bucket replaced with two 128 cm chimneys to support the sampling train, and enclosing the collector base

[1] Company no longer in business

Site Operation

Four entities have direct responsibility for the operation of a monitoring site: the Site Sponsor, the Funding Agency, the Site Operator, and the Site Supervisor. The individuals in these roles are responsible for the operation of the site in accordance with standard MDN procedures and criteria.

The Site Sponsor may provide in-kind services for the operation of the monitoring site. This may include: site location, site facilities, and/or a site operator. The Funding Agency provides funds for the operation of a site. This may include: equipment, personnel, chemistry, utilities, shipping, and other expenses related to operation of the site. In some cases, the Site Sponsor and the Funding Agency are the same.

Tables 2 and 3 indicate the responsibilities of the Site Supervisor and the Site Operator, respectively, and the frequency of those activities.

It is recommended that each site identify a Backup Operator. The Backup Operator performs Site Operator duties when the Primary Operator is not available.

Excluding travel to and from the site, weekly activities associated with operation of the site may take approximately two hours to complete.

In order to maintain uniformity throughout the network, the wet deposition sample should be processed every Tuesday morning as close to 9:00am as possible. Inclement weather and the availability of personnel during holidays may prohibit the sample from being processed on this schedule. To account for such instances, samples may be processed either early or late. The MDN bottle contains an acid pre-charge which preserves the mercury in the wet-deposition sample. As such, MDN samples are only invalidated once the sample train deployment exceeds 15 days.

Table 2. Responsibilities of the Site Supervisor.

Activity	Frequency
Ensure conformance with MDN procedures	As needed
Ensure conformance with MDN siting criteria	As needed
Review site data	Monthly
Review data reports and summaries	Annually
Arrange for resources to correct problems	As needed

Table 3. Responsibilities of the Site Operator.

Activity	Frequency
Inspect site and equipment	Weekly*
Verify sensor operation	Weekly*
Collect and process sample	Weekly*
Collect and process rain gauge data	Weekly*
Complete MOF	Weekly*
Ship sample and MOF to the NAL	Weekly*
Change dry side bucket bag	Weekly*, if dry-side bucket is present
Replace dry side bucket	As needed, if present
Clean collector surfaces	Weekly*
Clean and inspect collector lid seal	Weekly*
Replace collector lid seal	As needed
Maintain/stir anti-freeze solution in rain gauge	Weekly*, when winterized
Verify equipment is secure and level	Monthly
Troubleshoot equipment	As needed
Repair and maintain equipment	As needed
Replace/upgrade equipment	As needed
Winterize/Summerize equipment	Annually (location dependent)
Participate in Field QA Programs	Once every year
Participate in External Site Performance and Systems Survey	Once every 3-4 years

* Every Tuesday morning.

This document does not address safety issues that may result from the operation and maintenance of a monitoring site. It is the responsibility of the site operator and the site supervisor to determine regulatory requirements, and establish appropriate safety protocols.

Weekly Activities

As indicated in Table 3, some activities associated with the operation of an MDN site must be performed on a weekly basis. Completion of the weekly tasks on a regular schedule is essential. Detailed instructions for many of the weekly activities are included in separate Standard Operating Procedure (SOP) documents and can be accessed from the NADP website. On-line video instruction materials detailing these same activities are in production.

MDN Observer Form

When processing the weekly precipitation sample a MDN Observer Form (MOF) must be completed. Figure 1 illustrates that form. The Site Operator, i.e., the person processing the sample, should complete Blocks 1-10 on the form. Incomplete forms require additional resources to process, and require a phone call to the Site Operator to gather the missing information. It is recommended that the Site Operator verify that the form is complete and that the information is legible before sending the MOF, and the sample, to the NAL.

NADP-MDN

MERCURY DEPOSITION NETWORK
MDN OBSERVER FORM (MOF)
Send completed form with each sample to:
NADP Sample Receiving, 465 Henry Mall, Madison, WI 53706
Problems? Call NADP Site Support at 1-800-952-7353
e-mail: mdn@slh.wisc.edu

Place barcode sticker here

RECEIVER INITIALS ☐ BAG OPEN? ☐ LEAK? ☐
FOR LAB USE ONLY

1. SITE Site Name: NADP Program Office Site — SITE ID: P 0 0 1
2. OBSERVER (OFF) Print name: NADP Site Liaison — Initials: N S L

3. COLLECTION BOX ID (Fill one in): ●A ○B ○C ○D ○ ☐
BOTTLE ID: C 9 7 9 1

	Date MO	DAY	YR	Time (24 hour) 0001-2400
ON	1 0	1 3	2 6	0 9 0 0
OFF	1 0	2 0	2 6	0 9 2 2

4. SITE OPERATIONS *Fill in YES, NO, or U (Unable to determine). If **NO** or **U** for Item 1 or 2, describe in Block 10 and **call NADP Site Support***

YES	NO	U	
●	○	○	1.Collector sensor heater & motor box worked properly. Lid is in correct position.
●	○	○	2.Rain gauge operated properly during the week.
●	○	○	3.Collector opened & closed at least once during the week, **apart from testing.**
●	○	○	4.Rain gauge in winterized state during sampling period (antifreeze in gauge).
○	●	○	5.Fresh antifreeze added during sampling period?

5. SAMPLE CONDITION *Fill in the type of contamination in the sample. Describe **all** contamination in Block 10, including any not listed.*

YES	NO	
○	●	1.Bird droppings
○	●	2.Cloudy or discolored
●	○	3.Soot/ash/dirt particles
●	○	4.Insects/animal matter
○	●	5.Leaves/twigs/pollen/plant matter
○	●	6.Handling contamination

6. OVERFLOW (Fill one in) YES ○ NO ● — Amount of Overflow: ☐ mL

7. PRECIPITATION RECORD *Data downloaded from rain gauge on:*

Date MO	DAY	YR	Time (24 hour) 0001-2400
1 0	2 0	2 6	0 9 2 5

Total Rain Gauge Depth (inches): 0.25

Email data to: ***nadp-precip@slh.wisc.edu*** *or upload at* ***http://nadp.slh.wisc.edu/upload/ppt***

8.ENCLOSURE TEMPERATURE *Fill in one.* ●°F ○°C
MIN 6 0 MAX 7 2

9. SUPPLIES Gloves ○S ●M ○L ○XL
Fill in if needed.
○RO water ○Field forms ○Lid seal pad ○Packing tape ●Blue connector clip
○Air filter ○Extra funnel ○Extra thistle ○Solid 1L bottle cap ○Solid 2L bottle cap ○Drilled 2L bottle cap

10. REMARKS *For example: equipment malfunction, extreme weather conditions, contamination, farming, burning, logging, leakage, etc.*

Prescribed burns occurred at site at around 10 am on 10/16/2026.

White Copy – Analytical Lab Pink Copy – Site Operator Rev. 10-2026

Figure 1. MDN Observer Form

Non-standard Operation

In some instances, it is necessary to place the equipment in a non-standard operating mode. Site Support will decide when this is necessary. Bulk sampling is one example of non-standard equipment operation. In this mode the sample train and sample bottle are exposed continuously during the sample period. Site Support may request bulk sampling when the sensor or the collector motorbox fail. This should be noted in Block 10 of the MOF.

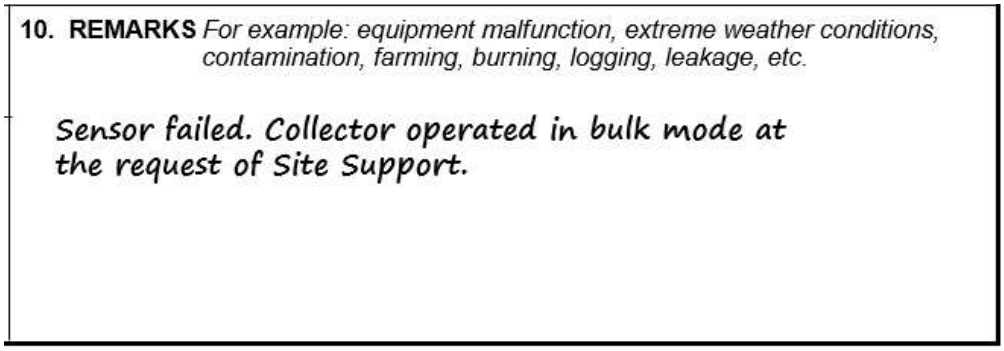


Figure 2. MOF Block 10 indicating bulk sampling

An undefined sample results when the sample train and sample bottle are exposed during dry weather for more than 6 hours. This may occur when the sensor fails to heat, or when the collector motorbox malfunctions or fails. Both bulk mode samples and undefined samples will be flagged as invalid during data review. It is likely that the chemistry of these samples was impacted by dry deposition.

Field Chemistry

Field chemistry is not part of the protocol for operation of an MDN site.

Other Activities

Some activities associated with the operation of an MDN site are performed less frequently than the weekly activities that were discussed earlier in this document. Instructions for completing these activities (e.g., lid seal replacement, sensor replacement, motorbox replacement) are documented in SOPs and are available from the NADP website (http://nadp.slh.wisc.edu). It is recommended that the Site Operator verify that the equipment is secure and level on the first Tuesday of each month.

Prior to the onset of winter, those sites which typically experience temperatures below freezing should be winterized. Refer to equipment specific SOPs for winterizing the site. The NAL will send a reminder with instructions for winterizing the site with the weekly cooler containing the replacement sample train and bottle. Winterization includes adding anti-freeze (e.g., ethylene glycol or propylene glycol) to the precipitation gage, replacing the filter in the frame of the collector with insulation block, and adjusting the thermostat to maintain a proper temperature range inside the collector. Additional equipment specific activities are noted in Table 4.

Samples that include snow (S), mixed (M), or unknown (U) precipitation types will be invalidated if the site has not been winterized.

Equipment	Activity	Frequency
Collector	Adjust thermostat	Weekly when winterized
Collector	Plug in and test the heater	When site is first winterized
Collector	Replace filter with insulation block	When site is first winterized
Rain gauge	Empty weighing chamber and add 2 quarts of antifreeze	When site is first winterized
Rain gauge	Maintain/stir anti-freeze mixture	Weekly when winterized
NWS stick gage (if used as backup rain gauge)	Remove and store 2" tube and funnel	When site is first winterized
Battery (DC powered sites)	Service battery fluid	When site is first winterized
Battery (DC powered sites)	Load test	When site is first winterized

Table 4. Equipment-specific winterization activities.

When the anti-freeze mixture becomes dilute, it will lose its effectiveness and the mixture may freeze in the weighing chamber. This may cause the weighing chamber to crack. To prevent this from occurring, the weighing chamber should be emptied and fresh anti-freeze added to it. A transfer pump (available from the NED) should be used to empty the weighing chamber. The rain gauge should be inspected weekly to ensure this does not become a problem. Anti-freeze is toxic to wildlife and should be disposed of properly. RV/camper anti-freeze (propylene glycol) is more environmentally friendly and may be a better option for use.

When the temperature at a site will remain above 40^{o}F consistently, those sites that have been "winterized" should be "summerized." Refer to equipment specific SOPs for summerizing the site. The NAL will send a reminder with instructions for summerizing the site with the weekly cooler containing the replacement sample train and bottle. Activities associated with "summerization" are listed in Table 5.

Table 5. Equipment-specific summerization activities

Equipment	Activity	Frequency
Collector	Adjust thermostat	When site is first summerized
Collector	Unplug heater	When site is first summerized
Collector	Replace insulation block with filter	When site is first summerized
Rain gauge	Dispose of anti-freeze mixture according to proper disposal guidelines	When site is first summerized
NWS stick gage (backup rain gauge)	Replace 2" tube and funnel	When site is first summerized
Battery (DC powered sites)	Service battery fluid	When site is first summerized
Battery (DC powered sites)	Load test	When site is first summerized

Training

In addition to this manual, it is recommended that those responsible for the operation of a site read the document *NADP Site Selection and Installation Manual*. That document describes the NADP siting criteria and is available from the NADP website. On-line training videos for the MDN are available. Training materials are available on the NADP website (http://nadp.slh.wisc.edu/siteops).

Troubleshooting

SOPs are available from the NADP website (http://nadp.slh.wisc.edu/siteops) to help troubleshoot problems associated with the operation of the wet-deposition monitoring equipment. Documents are available for the three approved collectors, and for the rain gauges.

Field Quality Assurance Program

The USGS sponsors an external QA program for sites in the MDN. The purpose of this program is to measure the effects of field exposure and sample handling on sample chemistry. Participating sites are asked to process and submit one QA sample during the course of a year. The field QA sample is processed during a dry week, and is submitted to the NAL. Results from the program are available at http://bqs.usgs.gov/. Contact information for this program is available in the Contact List section of this document.

The collocated equipment program is another QA program sponsored by the USGS. This program allows a site to operate pairs of collectors and/or pairs of rain gages. The equipment pairs may be the same make and model, different models from the same manufacturer, or different models from different manufacturers. This program is used to assess the overall error in MDN measurements, and for testing equipment that is proposed for network use. Site Operators may be asked to participate in a collocated equipment program for a period of a year or more.

Site Performance and Systems Survey

The U.S. EPA sponsors an external, independent survey of sites in the NADP networks. Each site in the MDN is surveyed once every 3-4 years by an independent survey team. The survey team will contact the site approximately one month prior to their visit to schedule the survey.

Weather permitting, the survey team will:

- verify the operation and calibration of field equipment
- document site information
- document compliance with siting criteria
- photograph the site
- verify conformance with NADP procedures

- answer operator questions
- assist with minor repairs and maintenance

As part of the site survey, the site operator will be asked to perform a sample change. This will impact the sample duration of both the current sample and the subsequent sample. As discussed in the *Site Operations* section of this document, MDN samples are not invalidated based on the length of time the sample train was deployed.

A report will be sent to the Site Operator, the Site Supervisor, and the NADP PO following completion of the survey. The report will provide findings from the survey including: a list of supplies to be ordered, items to be repaired, and conditions of the site relative to the approved siting criteria. Contact information for this program is available in the Contact List section of this document.

NADP Website

The NADP website can be accessed at http://nadp.slh.wisc.edu. The website contains the complete data archive for each site in the network, documents relating to the operation of the network, documentation from the site surveys, and a range of data products. Figure 3 illustrates one of the data products, a deposition isopleth map. Site Operators and Site Supervisors are encouraged to use the website.

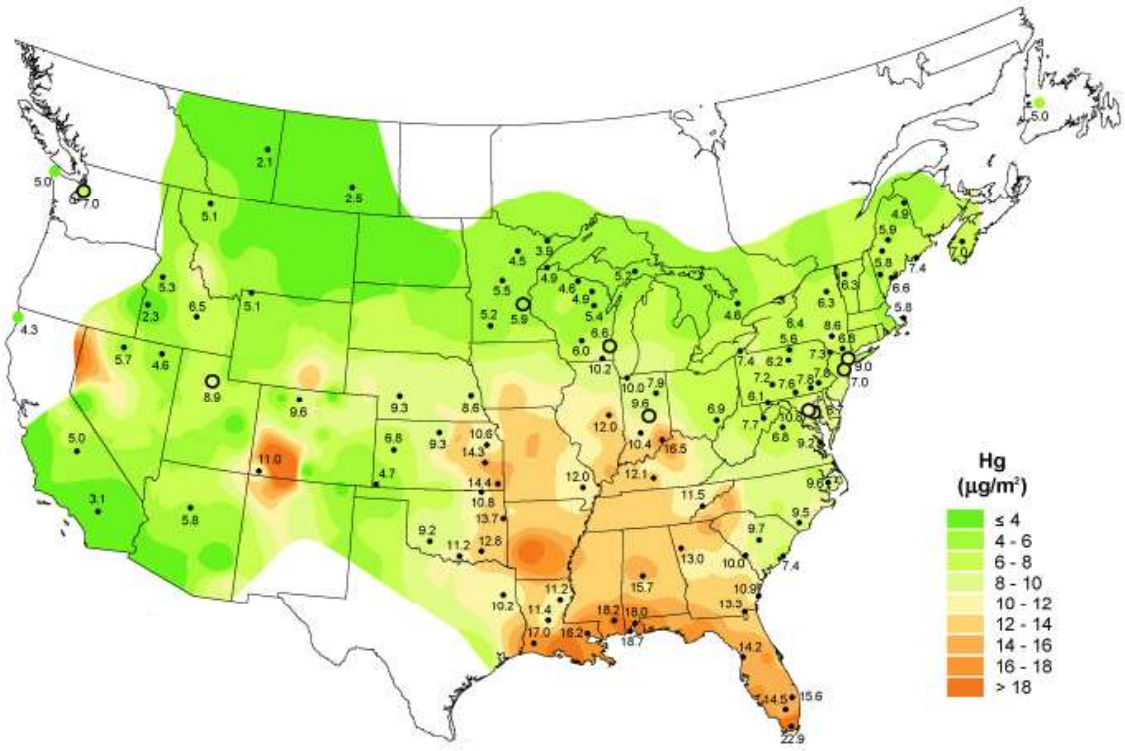


Figure 3. Mercury wet deposition isopleth map for 2009.

Frequently Asked Questions

We would like to start a new site in the network. What do we need to do?

The "NADP Site Selection and Installation Manual" and the "Site Installation Worksheet" are two documents that will help with this process. Both documents are available from the NADP website. Once complete, the "Site Installation Worksheet," with a sketch and photos of the proposed site, should to be submitted to the NADP Program Office for possible acceptance in the network. Contact the NADP PO for additional information.

We would like to conduct a special study at our NADP site. The study might use NADP equipment. What should we do?

Please contact the NADP PO before proceeding. All special studies at NADP sites require network approval. This is particularly true if NADP equipment (e.g., the dry-side bucket) will be used in the study.

A new operator will start next month and will assume primary responsibility for the site. What should we do?

First, we extend our thanks to the current site operator for all of their efforts operating and maintaining the site.

Next, contact the NADP PO. The PO will need contact information for the new operator. If possible, provide overlap training for the new Site Operator. Provide a copy of this manual (the "Mercury Deposition Network Site Operations Manual"), and the "NADP Site Selection and Installation Manual." Both documents are available on the NADP website. On-line training videos for the MDN are available. Training materials are available on the NADP website (http://nadp.slh.wisc.edu/siteops).

I need to re-locate my site. What do I need to do?

The "NADP Site Selection and Installation Manual" includes guidance for site re-location. This document is available on the NADP website. Site Support can provide guidance as well. The "move" date for the site must be documented. The funding agency should be notified at the outset, and should be kept apprised as work progresses.

My site will be closing. What do I need to do?

Contact the NADP PO. The final "Date Off" for samples will need to be documented. The PO will discuss the fate of equipment and supplies. Site closure must be done in collaboration with the funding agency.

I received a broken or the wrong glass sample train for use with my site. What should I do?

Contact Site Support as soon as possible to have the correct sample train shipped to your site. The glassware is no longer identified by the red or blue colored coolers. The red or blue dot on the cooler box identifies whether it is an Aerochem or NCON sample train.

It is Tuesday morning and it is raining (or snowing). Should I change the sample in the rain (snow)?

It is best to change the sample after the precipitation has stopped. If this is not possible, and if it is safe to collect the sample, then the sample may be collected during the precipitation event. Use caution so as to prevent bodily harm, and possible sample contamination from clothing, an umbrella, etc. Indicate in Block 10 of the MOF that the sample was collected during a precipitation event.

Next Tuesday is a holiday. No one will be available to collect the sample. What should I do?

When personnel are otherwise unavailable to collect a sample on Tuesday, the network allows the sample bottle to be collected early, or late without impacting the validity of the sample. MDN samples are invalidated if the deployment time exceeds 15 days.

A portion of the sample spilled in the field when collecting the sample bottle from the collector. What should I do?

Note this in Block 10 of the MOF. This will impact sample mass. It may also impact sample chemistry. Do not return the spilled sample to the sample bottle. Doing so will invalidate the sample.

The overflow dish contains liquid, but the sample bottle is not full. What should I do?

Inspect the sample train and sample bottle for cracks. Dispose of the liquid in the overflow dish and dry the dish. Do not check the overflow 'Yes' box in Block 6 of the MOF. Do not add the overflow liquid to the sample bottle. Doing so will invalidate the sample. Note the presence of liquid in the overflow dish and any observations in Block 10 of the MOF.

The sample bottle is full and the overflow dish contains liquid. What should I do?

Using a graduated cylinder, measure the volume of the liquid in the overflow dish. Check the 'Yes' box and note this volume in Block 6 of the MOF. Dispose of the overflow liquid and dry the overflow dish. Do not add the overflow liquid to the sample bottle. Doing so will invalidate the sample.

The dry-side bucket/bag contains a significant volume of water (or snow). What should I do?

Indicate this in Block 10 of the MOF. If the precipitation gage indicates precipitation during the week, it is likely that the collector malfunctioned. Verify proper operation of the sensor and the collector motorbox. If necessary, call Site Support for assistance troubleshooting the problem. If equipment malfunction or failure is determined, answer NO to question 1 in Block 4 of the MOF. Contact Site Support to order replacement parts.

My site has an Aerochem Metrics collector. How frequently should I change the dry-side bucket?

A*s needed.*

Where do I get a new dry-side bucket?

Contact Site Support for a new dry-side bucket.

How do I verify the operation of the grid-type sensor?

When the ambient temperature is below 40°F, the grid sensor should heat and be warm to the touch. Place the side of one's little finger on the grid to verify whether the sensor is heating.

A few drops of water on the sensor grid should trigger the sensor, causing the sensor to heat, and the collector to open. Blow on the sensor grid to dry it. This should cause the collector to close.

If any of these conditions is not met, the sensor may need to be replaced. Consult Site Support for guidance.

Which grid sensor should I use with my MDN Aerochem Metrics collector?

The MDN requires an 11-grid sensor when a grid-type sensor is used with the collector.

Can I use an optical sensor with my MDN Aerochem Metrics collector?

Though a version of the Thies optical sensor can be used with an Aerochem Metrics collector, the default sensor remains the 11-grid sensor. For more information on using a Thies sensor on the Aerochem contact Site Support.

Does the precipitation gage at my site need a wind shield?

Sites that receive more than 20% of their annual precipitation as snow must install an Alter-type shield on their precipitation gage. Sites at an altitude of 1,000 meters or more are encouraged to install a wind shield on their precipitation gage.

How high above the top of the precipitation gage should the Alter-type wind shield be installed?

The pivot axis for the leaves of the Alter-type shield should be at the same height as the orifice to the precipitation gage.

Ice on the collector arms is a problem at my site. We replace several motorboxes on the collector each winter. What can we do?

Replacement bushings for the collector arms may be requested from Site Support. The replacement bushings are made of Delrin, a synthetic material with a low coefficient of friction. Additionally, a snow roof can be installed on the collector lid.

Collector arm boots may be requested from the Site Liaison. The collector arm boots are installed at the base of the collector arm, where the collector arm meets the collector frame. The boots may help prevent ice from forming at the base of the collector arm.

How often should I submit data from the electronic rain gauge?

Data from the electronic rain gauge should be submitted weekly. This should be the same day that the sample is collected from the field. In most cases this would be on a Tuesday.

How long should I keep my pink copies of the field observer report form (MOF)?

Retain the site copies on site for 2 years after submission of samples.

To whom should I submit data from the electronic rain gauge?

Data files for the electronic rain gauge should be uploaded to the following site:

http://nadp2.slh.wisc.edu/upload/ppt/

Alternatively, the data files may be emailed to:

nadp-precip@slh.wisc.edu

I use an Android and LoggerLink to download the rain gauge data and I keep getting a timeout error or data downloaded with errors message?

An upgraded Bluetooth adapter power cable may be required, contact Site Support for more information.

Can an iPhone/iPad be used to collect data from the electronic rain gauge?

Yes, a Wi-Fi adapter is required. Contact Site Support for more information.

Is the SC115 flash drive compatible with a MacBook?

Yes. Ensure "External disks" is selected under Finder Preferences if the SC115 does not appear.

How do I download data from the electronic rain gauge?

This will depend on the method used to download the data, consult the website https://nadp.slh.wisc.edu/siteops/data-download/.

I cannot connect to the electronic rain gauge with the PDA/Android. What should I do?

Verify that Bluetooth is turned on for both the PDA/Android and the electronic rain gauge. If this does not resolve the problem, power cycle the PDA by depressing the power button on the top right side of the PDA.

My PDA/Android is broken. What should I do?

Verify that the battery in the PDA is charged. If the problem persists, contact Site Support.

Can any PDA be used to collect data from the electronic rain gauge?

Though most PDAs could be used to communicate with the electronic rain gauge, software provided by NADP is required.

Contact Lists

Table 6. NADP contact information.

NADP Personnel		
Contact	**Phone Number**	**email address**
AMNet Site Support	800-952-7353	amnet@slh.wisc.edu
AMoN Site Support		amon@slh.wisc.edu
MDN Site Support		mdn@slh.wisc.edu
MLN Site Support		mln@slh.wisc.edu
NTN Site Support		ntn@slh.wisc.edu
PFN Site Support		pfn@slh.wisc.edu
Network Equipment Depot		ned@slh.wisc.edu
Site Performance and Systems Survey Program		nadp@slh.wisc.edu
USGS External Quality Assurance Program	518-285-5681	ndeyette@usgs.gov
NADP Coordinator/Principal Investigator	(608) 263-9162	Sarah.Benish@slh.wisc.edu
NADP Assistant Coordinator	(608) 265-2449	Nichole.Miller@slh.wisc.edu
Program Operations Supervisor	(608) 224-4336	Ella.Osby@slh.wisc.edu

Table 7. Active manufacturer contact information for NADP MDN approved equipment.

NADP Equipment Manufacturers		
Manufacturer	**Phone Number**	**URL**
ETI Instrument Systems, Inc.	970-484-9393	http://etisensors.com
OTT Hydromet	800-949-3766	http://www.ott.com/en-us/
N-CON Systems Company, Inc.	800-932-6266	http://www.n-con.com
NovaLynx Corporation	530-823-7185	http://novalynx.com

Appendix: References

National Atmospheric Deposition Program (NADP). 2024. *NADP Site Selection and Installation Manual*. Wisconsin State Laboratory of Hygiene, Madison, WI

National Atmospheric Deposition Program (NADP). 2021. *NADP Site Information Worksheet*. Wisconsin State Laboratory of Hygiene, Madison, WI