

EPA NPDES eRule Implementation: Overview of Updates to the ICIS Data Submission Service for Phase 2 Data



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1.0 OVERVIEW

EPA published the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule ("NPDES eRule") on 22 October 2015. The 2015 rule requires EPA and states to modernize Clean Water Act (CWA) reporting for municipalities, industries, and other facilities. That rule replaced most paper based NPDES reporting requirements with electronic reporting. These reports include: (1) Discharge Monitoring Reports (DMRs); (2) general permit reports (e.g., Notices of Intent to discharge in compliance with a general permit); and (3) other specified program reports. The NPDES eRule uses a phased implementation schedule (40 CFR 127.26). Most states and permittees have successfully implemented Phase 1 of the NPDES eRule, which includes electronic submission of DMRs and the Federal Biosolids Annual Report where EPA is the Regulatory Authority. Electronic submission of all other reports and notices are part of Phase 2 implementation.

The NPDES eRule also requires EPA Regions and approved states to electronically share specific data with EPA's national NPDES data system. See 40 CFR 127.23. The data that these regulatory authorities share with EPA includes permit, compliance monitoring (e.g., inspection), violation determination, and enforcement action data. These electronic data transfers must be "timely, accurate, complete, and consistent." The NPDES eRule requires EPA Regions and approved states to share the "minimum set of NPDES data" with EPA's national NPDES data system. These data are listed in Appendix A, 40 CFR part 127. The proper sharing of these data between EPA and state NPDES data systems ensures, "that there is consistent and complete reporting nationwide, and expeditious collection and processing of the data, thereby making it more accurate and timely."

EPA extended the deadline for Phase 2 implementation by five years in a final rule published on 2 November 2020 (85 FR 69189). This final rule also provides states with additional flexibility to request additional time up to three years if needed, subject to EPA review and approval. This final rule also eliminated some duplicative or outdated reporting requirements. These changes ensure a smoother transition from paper to electronic reporting for the NPDES program. Taken together, these data standardizations and the corresponding electronic reporting requirements are designed to save the EPA and approved states considerable resources, make reporting easier for NPDES-regulated entities, streamline permit renewals (as permit writers typically review previous noncompliance events during permit renewal), ensure full exchange of NPDES program data between states and EPA to the public, improve environmental decision-making, and protect human health and the environment.

This document provides a high-level overview of EPA's updates to the <u>ICIS Data Submission</u> service for the incorporation of NPDES eRule Phase 2 data elements. This document provides additional background details on this data sharing service and should be of help for EPA Regions and states as they take steps to comply with the NPDES eRule Phase 2 data sharing compliance date (21 December 2025).

2.0 UPDATING ICIS DATA SUBMISSION SERVICE FOR PHASE 2 DATA

The NPDES eRule allows states to determine what electronic reporting tools and systems work best for them and whether they would like to be the initial recipient of NPDES compliance monitoring data. EPA does not dictate the electronic reporting tools that a state may use. Rather, EPA sets performance requirements for states that wish to build their own electronic reporting tools. States that elect to build their own electronic reporting tools must share the "minimum set of NPDES data" with EPA. EPA Regions use EPA's software (e.g., ICIS-NPDES, NetDMR, NeT), which handle the NPDES eRule data sharing requirements.

EPA supports the NPDES eRule data sharing requirements by maintaining and supporting the ICIS Data Submission service, which is hosted on the Exchange Network (EN). This service allows EPA Regions and approved states to electronically send NPDES program data to EPA's national NPDES data system in batch submissions using eXtensible Markup Language (XML) technology. EPA takes these XML data files and routes them to its Integrated Compliance Information System – National Pollutant Discharge Elimination System (ICIS—NPDES) and other related systems. In order to use the ICIS Data Submission service, EPA Regions and approved states must compose their transactions into well-formed XML files, package them into zip files, and then electronically submit them using their "Node" on the Exchange Network or by manually uploading them using a form on the Exchange Network Service Center website. These data are grouped together in "payloads" to help facilitate the data transfer.

EPA has worked with EPA Regions and states in a collaborative manner since publication of the 2015 NPDES eRule. In particular, EPA worked with states over a two-year process to develop implementation guidance called "Technical Papers." These papers support implementation of the final rule by providing further information for the data elements identified in the final rule (Appendix A to 40 CFR part 127). These papers provide additional guidance for the information submitted during NPDES permit applications [including Notice of Intent to Discharge (NOI) submissions], compliance monitoring data submitted by NPDES-regulated entities, and compliance monitoring data submitted by EPA or states. EPA used these technical papers to develop specific requirements for updates to the ICIS Data Submission service.

EPA continued this partnership with bi-weekly meetings to discuss the inclusion of Phase 2 data elements into the ICIS Data Submission service. These bi-weekly meetings started in January 2023 and ended in November 2024. EPA and states discussed options for adding new payloads and updating existing payloads for the incorporation of Phase 2 data elements. EPA Regions and states were provided four to six weeks to review each set of changes and to submit any comments or suggestions to EPA. EPA incorporated these changes and published updates to the service in four revisions to allow for state testing (as shown in Table 1). Version 5.14 of the service includes all the data elements listed in the NPDES eRule (Appendix A to 40 CFR part 127). EPA recommends that states start using Version 5.14 to test their data flows in advance of the NPDES eRule data sharing compliance deadline (December 21, 2025). EPA routes Phase 2 data to either ICIS-NPDES or the OECA Data Store as noted in Table 1.

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¹ See: https://www.epa.gov/compliance/data-entry-guidance-and-technical-papers

 Table 1: Updates to ICIS Data Submission Service for Phase 2 Data

NPDES Program Data	New Payloads (added since March 2024) (payloads in bold are routed to OECA Data Store)	Existing Payloads (prior to March 2024) (payloads in bold are routed to OECA Data Store)	Schema Version Number (Status)
Sewer Overflow Event Report and POTW Permit Data	 SewerOverflowBypassEventReportSubmission CollectionSystemPermitSubmission CSOLongTermControlPlanSubmission POTWTreatmentTechnologyPermitSubmission 	• None	5.11 (Released 19 March 2024)
Industrial and Construction Stormwater Permit Data	• None	 Add "Residual Designation Determination Code" to: BasicPermitSubmission, GeneralPermitSubmission, and MasterGeneralPermitSubmission Update construction and industrial stormwater data on the following permit component payloads: SWConstructionPermitSubmission SWIndustrialPermitSubmission 	5.12 (Released 14 June 2024)
MS4 Annual Report and Permit Data	 SWMS4AnnualProgramReportSubmission SWMS4PermitSubmission CopyMGPMS4RequirementSubmission 	• None	5.13 (Released 8 October 2024)
Pretreatment Data Pottw Pretreatment Program Report PretreatmentProgramReportSubmission Add "Industry Use BasicPermit Individual IU Update pretreatment		 Add "Industry User Type Code" to: BasicPermitSubmission [for use when Permit Type is Individual IU Permit (IIU)] Update pretreatment data on the following payload: PretreatmentPermitSubmission 	5.14 (Released 24 January 2025)
CAFO Annual Report and Permit Data	·		5.14 (Released 24 January 2025)
Biosolids Annual Report and Permit Data	• None	 BiosolidsAnnualProgramReportSubmission BiosolidsPermitSubmission 	5.14 (Released 24 January 2025)
CWA 316(b) and NPDES Variance Request Data	CWA Section 316(b) Program Report NPDES Variance Request CWA316bProgramReportSubmission NPDESVariancePermitSubmission	Update CWA 316(b) data on the following payload: • PermittedFeatureSubmission	5.14 (Released 24 January 2025)

3.0 PHASE 2 NPDES PROGRAM DATA

EPA is implementing the requirements of the NPDES eRule in two phases. The compliance deadlines for sharing these data are as follows:

• Phase 1 – Starting No Later Than December 21, 2016:

- Permittees must electronically submit their Discharge Monitoring Reports (DMRs).
- o Facilities regulated by EPA must electronically submit their biosolids annual report.
- Approved NPDES programs must electronically share with EPA the DMR data they receive from permittees and the NPDES permitting, compliance, and enforcement data they generate themselves.

• Phase 2 – Starting No Later Than December 21, 2025:

- Permittees must electronically submit general permit notices and program reports (see the detailed list below).
- Approved NPDES programs must electronically share with EPA the general permit notices and program reports they receive from permittees as well as any related NPDES permitting, compliance, and enforcement data they generate themselves.

EPA has developed a spreadsheet to identify the phase and due date for each data element. This spreadsheet is available on the NPDES eRule website: https://www.epa.gov/compliance/npdes-ereporting.

Version 5.14 of the service includes all the data elements listed in the NPDES eRule (<u>Appendix A</u> to 40 CFR part 127). EPA recommends that states start using Version 5.14 to test their data flows in advance of the NPDES eRule data sharing compliance deadline (December 21, 2025).

3.1 Sewer Overflow Event Report and POTW Permit Data

The NPDES eRule standardized reporting requirements for sewer overflow noncompliance reporting and bypass reporting as well as other POTW related data. These data are described in Technical Paper No. 2 as well as in the "Example XML Instance Document." The program report documents sewer overflow and bypass event reports. This program report application also uses permit data to identify facility and sewer collection system information (e.g., combined sewer system outfalls that are permitted features). EPA drafted four new payloads to collect Phase 2 data related to these sewer spills and other POTW related data and shared these payloads with states for their review.

- SewerOverflowBypassEventReportSubmission
- CollectionSystemPermitSubmission
- CSOLongTermControlPlanSubmission
- POTWTreatmentTechnologyPermitSubmission

EPA added these four payloads to the ICIS Data Submission service (v5.11). EPA routes these data to the OECA Data Store as part of Phase 2 implementation..

3.2 Industrial and Construction Stormwater Permit Data

NPDES Phase 2 implementation covers about a dozen data elements that are specific to industrial and construction stormwater permits. These data are described in <u>Technical Paper No. 9</u> as well as in the "Example XML Instance Document" and are sent to ICIS.

Residual Designation Determination Code

EPA Regions and approved states may specifically designate stormwater discharges as requiring an NPDES permit under section 402(p)(2)(E) and (6) and 40 CFR 122.26 (a)(9)(i)(C) and (D). EPA Regions and approved states may can use this "residual designation" authority to require NPDES permits for stormwater discharges or category of discharges on a case-by-case basis. This information is generated by the EPA Region or state and reported after the permit application process is complete. The EPA Region or approved states (not the permit applicant) provides these data (by NPDES ID) to EPA's national NPDES data system using the ICIS Data Submission service. EPA Regions and states should only use this data element for permits that are issued under the residual designation authority.

EPA added this data element, "Residual Designation Determination Code," to the BasicPermitSubmission, GeneralPermitSubmission, and MasterGeneralPermit payloads in the ICIS Data Submission service (v5.12). EPA routes these data to ICIS-NPDES as part of Phase 2 implementation.

Construction Stormwater

The NPDES stormwater program requires permits for discharges from construction activities that disturb one or more acres, and discharges from smaller sites that are part of a larger common plan of development or sale. Most construction site operators submit a Notice of Intent (NOI) to obtain coverage under an NPDES general permit. The following four data element applies to all NPDES-permitted construction sites. These data elements are described in Technical Paper No. 9 as well as in the "Example XML Instance Document."

- Estimated Construction Project Start Date
- Estimated Construction Project End Date
- Total Activity Area (Construction)
- Low Erosivity Waiver or Other Waiver From Stormwater Controls Approval Date

The NPDES eRule requires states to share the following <u>Appendix A</u> data with EPA for individual permitted construction sites (i.e., Permit Type = NPD). States have the option to share these data with EPA for construction sites covered by general permits (i.e., Permit Type = GPC). These data elements are described in <u>Technical Paper No. 9</u> as well as in the "<u>Example XML Instance Document</u>."

- Total Area of the Site
- Post-Construction Total Impervious Area
- Proposed Stormwater Best Management Practices for Construction Activities
- Post-Construction Stormwater Best Management Practices for Construction Activities
- Soil and Fill Material Description
- Runoff Coefficient of the Site (Post-Construction)

EPA added these data elements to the SWConstructionPermitSubmission payload in the ICIS Data Submission service (v5.12). EPA routes these data to ICIS-NPDES as part of Phase 2 implementation.

Industrial Stormwater

The NPDES stormwater program requires permits for discharges from industrial activities. Most industrial site operators submit a Notice of Intent (NOI) to obtain coverage under an NPDES general permit. The following Phase 2 data element applies to all NPDES-permitted industrial stormwater permittees. This data element is described in Technical Paper No. 9 as well as in the "Example XML Instance Document."

No Exposure Authorization Date

The NPDES eRule requires states to share the following <u>Appendix A</u> data with EPA for individual permitted construction sites (i.e., Permit Type = NPD). States have the option to share these Phase 2 data with EPA for construction sites covered by general permits (i.e., Permit Type = GPC). These Phase 2 data elements are described in <u>Technical Paper No. 9</u> as well as in the "<u>Example XML Instance</u> <u>Document</u>."

- Total Surface Area Drained (Industrial
- Total Impervious Surface Area (Industrial)
- Proposed Stormwater Best Management Practices (Industrial)

EPA added these data elements to the SWIndustrialPermitSubmission payload in the ICIS Data Submission service (v5.12). EPA routes these data to ICIS-NPDES as part of Phase 2 implementation.

3.3 MS4 Annual Report and Permit Data

This sector includes discharges of municipal stormwater. Polluted stormwater runoff is commonly transported through municipal separate storm sewer systems (MS4s), and then often discharged, untreated, into local water bodies. To prevent harmful pollutants from being washed or dumped into MS4s, certain operators are required to obtain NPDES permits and develop stormwater management programs. These data are described in Technical Paper No. 9 as well as in the "<a href="Example XML Instance Document."

The program report requires filers to document their activities to control urban stormwater and to report any noncompliance. Consequently, the MS4 program report application works with permit application data to identify permit requirements. EPA drafted three new payloads to collect Phase 2 data related to these MS4 data and shared these payloads with states for their review.

- SWMS4AnnualProgramReportSubmission
- SWMS4PermitSubmission
- CopyMGPMS4RequirementSubmission

EPA added these three payloads to the ICIS Data Submission service (v5.13). EPA routes these data to the OECA Data Store as part of Phase 2 implementation..

3.4 Pretreatment Program Report and SIU-CIU Permit Data and Reports

The national pretreatment program is a component of the NPDES program. It is a cooperative effort of federal, state, and local environmental regulatory agencies established to protect water quality. Similar to how EPA approves the NPDES permit program to state, tribal, and territorial governments to perform permitting, administrative, and enforcement tasks for discharges to surface waters (NPDES program), the EPA and approved NPDES state pretreatment programs approve local governments to perform permitting, administrative, and enforcement tasks for industrial discharges into POTWs.

Currently there are there are 37 states approved to administer the Federal pretreatment program (40 CFR part 403). EPA administers the Federal pretreatment program for the remainder of 13 states and all territories and tribal lands. This program has two program reports and two sets of permit data [one for the local approved pretreatment program and another for the Significant Industrial User (SIU) or Categorical Industrial User (CIU)]. These data are described in Technical Paper No. 7 as well as in the "Example XML Instance Document."

POTW Program Permit Data

EPA regulations require EPA Regions and approved states to collect data that describe local pretreatment program data and to share these data with EPA. These <u>Appendix A</u> data elements include:

- Pretreatment Program Required Indicator
- Pretreatment Program Approval or Modification Date
- Pretreatment Program Modification Type
- Receiving RCRA Waste
- Receiving Remediation Waste
- Control Authority Identifier

EPA updated or added these data elements to the PretreatmentPermitSubmission payload in the ICIS Data Submission service (v5.14). EPA routes these data to ICIS-NPDES as part of Phase 2 implementation.

POTW Pretreatment Program Report

In accordance with 40 CFR 403.12(i), POTWs with an approved pretreatment program are required to submit annual reports to the Approval Authority documenting program status and activities performed during the previous year. At a minimum, the reports must contain the following information:

- A list of all the POTW's Significant Industrial Users and Categorical Industrial Users, including names, addresses, pretreatment standards applicable to each user, a brief explanation of deletions, and a list of additions (with the aforementioned information) keyed to a previously submitted list. The list must also identify IUs that are designated as Middle-Tier Categorical Industrial User (MTCIU) and must identify which IUs are Non-Significant Categorical Industrial User (NSCIU).
- A summary of the status of IU compliance during the reporting period.
- A summary of compliance and enforcement activities (including inspections) conducted by the POTW during the reporting period.
- A summary of changes to the POTW's pretreatment program that have not been previously reported to the Approval Authority.

• Any other relevant information requested by the Approval Authority.

Consequently, this annual report works with permit application data to identify the inventory of SIUs and CIUS as well as permit requirements. EPA drafted a new payload to collect Phase 2 data related to these annual report data (PretreatmentProgramReportSubmission) and shared this payload with states for their review. EPA added this payload to the ICIS Data Submission service (v5.14). EPA routes these data to the OECA Data Store as part of Phase 2 implementation.

SIU-CIU Permit and Limit Data

POTWs must provide, at a minimum, the information in NPDES Form 2A (or similar form) to their NPDES program (40 CFR part 122) at the time of their individual NPDES permit application [see 40 CFR 122.21(j)]. This includes an inventory of Significant Industrial Users and Categorical Industrial Users. These data are also needed to for approved local pretreatment programs when they prepare their annual report. These data are also used to create an inventory of SIU-CIUs that need to submit the semi-annual reporting from the SIU-CIUs where EPA or the state is the Control Authority.

EPA used the "BasicPermitSubmission" payload to collect control mechanism and facility data when the Permit Type set to "Individual IU Permit." These data are routed to ICIS-NPDES using the ICIS Data Submission service as part of Phase 2 implementation. EPA added the following tag ("IndustrialUserTypeCode") in the "BasicPermitSubmission" payload with Version 5.14. This tag should be provided when the "PermitTypeCode" tag is set to "IIU – Industrial User".

Industrial User Compliance Report

SIU/CIUs must submit a compliance monitoring report to their Control Authority. The reporting requirements for SIU/CIUs are listed in 40 CFR 403.12(e) and (h), respectively. In the absence of an approved local pretreatment program, the Approval Authority (State or EPA Region) serves as the Control Authority. In this scenario, the SIU/CIU must submit their compliance monitoring reports electronically in accordance with the NPDES eRule (40 CFR part 127). When the local government is the Control Authority, the local pretreatment program can choose the method for collecting compliance monitoring reports from the SIU/CIUs that they control (e.g., paper or electronic submissions).

EPA is using the payloads supporting the DMR data flow (the payloads on the <u>ICIS Data Submission</u> that support Discharge Monitoring Report (DMR) submissions (e.g., PermittedFeatureSubmission, LimitSetSubmission, LimitSetSubmission, ParameterLimitsSubmission,

DischargeMonitoringReportSubmission). A number of EPA Regions and states are already using the DMR form to collect SIU/CIU monitoring data. The DMR form seems well matched on the requirements in EPA's pretreatment regulations:

- CIUs must provide "a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards" 40 CFR 403.12(e);
- SIU must provide a report containing "the results of sampling and analysis of the Discharge, including the flow and the nature and concentration, or production and mass where requested by the Control Authority, of pollutants contained therein which are limited by the applicable Pretreatment Standards" (40 CFR 403.12(h)).

These data are routed to ICIS-NPDES using the ICIS Data Submission service as part of Phase 2 implementation.

However, as described in <u>Technical Paper No. 7</u>, the DMR form and ICIS-NPDES processing does not automatically detect Significant Noncompliance (SNC) in accordance with the pretreatment regulations. See <u>40 CFR 403.8(f)(2)(viii)</u>. The DMR form contains a <u>summary</u> of SIU/CIU effluent monitoring data for but not <u>all</u> the effluent monitoring data. As part of Phase 2 implementation of the NPDES eRule, EPA will provide guidance on how EPA and state pretreatment coordinators can review these DMR data to identify industrial users that may need to be manually reviewed for SNC and how to manually record this SNC in ICIS-NPDES.

3.5 CAFO Annual Report and Permit Data

This sector includes permitted discharges from Concentrated Animal Feeding Operations (CAFOs). The NPDES program regulates the discharge of pollutants from point sources to waters of the United States. CAFOs are point sources, as defined by the CWA [Section 502(14)]. To be considered a CAFO, a facility must first be defined as an AFO, and meet the criteria established in EPA's CAFO regulation. These permittees tend to renew their NPDES permit coverage by submitting their NOIs when EPA or the state re-issues the general permit. This category also includes a program report covered by the NPDES eRule (see Table 1 to Appendix A, 40 CFR part 127). The program report serves as a compliance monitoring tool to assess compliance with permit requirements. These CAFO data are described in Technical Paper No. 6 as well as in the "Example XML Instance Document."

CAFO Permit Data

CAFOs that apply for an individual NPDES permit use EPA's NPDES Form 2B or a similar state form. CAFOs that seek NPDES permit coverage under a NPDES general permit submit similar information on a Notice of Intent (NOI) form. The NPDES eRule identified the CAFO data elements to be submitted electronically as well as data sharing requirements for EPA Regions and approved states (see 40 CFR 127.23).

EPA updated the CAFO permit component payload (CAFOPermitSubmission) to collect these Phase 2 data. These data are routed to ICIS-NPDES using the ICIS Data Submission service (v5.14) as part of Phase 2 implementation.

CAFO Annual Report

The program report requires filers to document their activities to control discharges and manage their manure, litter, and process wastewater. Consequently, the CAFO program report application works with permit application data to identify permit requirements. EPA updated its systems to incorporate CAFO-specific permit application data. EPA drafted a new payload to collect Phase 2 data related to these annual report data (CAFOAnnualProgramReportSubmission) and shared this payload with states for their review. EPA added this payload to the ICIS Data Submission service (v5.14). EPA routes these data to the OECA Data Store as part of Phase 2 implementation.

² See: https://www.epa.gov/npdes/npdes-afos-policy-documents-0

CAFO Inspection Data

EPA updated its systems to incorporate the CAFO-inspection related data elements (<u>Appendix A</u> to 40 CFR part 127). These data are generated for each compliance monitoring activity (e.g., inspections, audits) by the EPA or approved state and include:

- Animal Types (Inspection)
- Animal Numbers (Inspection)
- Animal Numbers in Open Confinement (Inspection)
- MLPW Containment and Storage Type (Inspection)
- MLPW Containment and Storage Type Within Design Capacity (Inspection)
- AFO/CAFO Unauthorized Discharges (Inspection)
- Permit Requirements Implementation (Inspection)

These data elements document compliance with permit requirements at the time of the EPA or state inspection. EPA added these data elements to the ComplianceMonitoringSubmission and FederalComplianceMonitoringSubmission payloads. These data are routed to ICIS-NPDES using the ICIS Data Submission service (v5.14) as part of Phase 2 implementation.

3.6 Biosolids Annual Report and Permit Data

The NPDES eRule standardized reporting requirements for biosolids annual program report and permit data. These data are described in Technical Paper No. 5 as well as in the "Example XML Instance Document." The program report documents how the POTW managed its sewage sludge in the preceding year and is required for larger facilities (e.g., POTWs that service more than 10,000 people). The biosolids permit data sharing requirements apply to all POTWs.

Currently there are nine states that have authorization to administer the Federal biosolids program (Arizona, Idaho, Michigan, Ohio, Oklahoma, South Dakota, Texas, Utah, and Wisconsin). EPA administers the Federal biosolids program for the remainder of 41 states and all territories and tribal lands. Four of these states (Arizona, South Dakota, Texas, and Utah) have elected to use NeT for their program report, which means that they do not need to send the biosolids program report data to EPA using the ICIS Data Submission service. The remaining states that are building their own electronic reporting tool for this program report (Idaho, Michigan, Ohio, Oklahoma, and Wisconsin) need to use this service to share biosolids program report data.

EPA revised the following two payloads for biosolids permit and annual report data and shared these payloads with states for their review.

- BiosolidsAnnualProgramReportSubmission
- BiosolidsPermitSubmission

EPA updated these two payloads on the ICIS Data Submission service (v5.14). EPA routes these data to the OECA Data Store as part of Phase 2 implementation..

³ See: https://www.epa.gov/npdes/npdes-state-program-information.

3.7 CWA 316(b) and Variance Permit Data

The NPDES eRule identified data elements related to CWA Section 316 permit data and program report data as well as NPDES variance requests. These data must be collected by EPA Regions and approved states and electronically shared with EPA (40 CFR 127.23).

CWA 316(b) Permit Data

The following Cooling Water Intake Information describes the cooling water intake structure (a.k.a. "permitted feature") and is submitted by the permittee on their NPDES permit application. These data are described in <u>Technical Paper No. 8</u> as well as in the "Example XML Instance Document."

- Cooling Water Intake Applicable Subpart
- Design Intake Flow for Cooling Water Intake Structure(s)
- Actual Intake Flow for Cooling Water Intake Structure(s)
- Location Type for Cooling Water Intake Structure
- Actual Through-Screen Velocity
- Source Water for Cooling Purposes
- Cooling Water Intake Structure Chosen Compliance Method
- Source Water Baseline Biological Characterization Data: Threatened or Endangered Status

EPA updated the Permitted Feature payload (PermittedFeatureSubmission) to collect these Phase 2 data. These data are routed to ICIS-NPDES using the ICIS Data Submission service (v5.14) as part of Phase 2 implementation.

CWA 316(b) Program Report

The EPA Region or approved state may establish in the permit additional control measures, monitoring requirements, and reporting requirements that are designed to minimize incidental take, reduce, or remove more than minor detrimental effects to Federally listed species and designated critical habitat, or avoid jeopardizing Federally listed species or destroying or adversely modifying designated critical habitat (e.g., prey base). Where established in the permit by the NPDES permitting authority, the owner or operator must implement any such requirements. The NPDES eRule included these CWA Section 316 monitoring submissions as part of Phase 2 implementation. These data are described in Technical Paper No. 8 as well as in the "Example XML Instance Document."

The electronic submission of these CWA Section 316(b) reports help permitting authorities collect and process CWA Section 316(b) information more efficiently, and aid in the evaluation of the compliance status of NPDES-permitted facilities. The final rule standardized reporting requirements for the CWA Section 316(b) reports. These reports help to identify how many animals of each species and life cycle are killed and injured each year by this type of facility.

EPA drafted a new payload to collect these Phase 2 data (CWA316bProgramReportSubmission) and shared this payload with states for their review. EPA added this payload to the ICIS Data Submission service (v5.14). EPA routes these data to the OECA Data Store as part of Phase 2 implementation.

NPDES Variance Requests

EPA added data related to NPDES variance requests when it finalized the Phase 2 Extension rulemaking. These variances relate to the following provisions in the CWA:

- Fundamentally different factors (FDFs) (CWA section 301(n))
- Non-conventional pollutants (CWA section 301(c) and (g))
- Water quality related effluent limitations (CWA Section 302(b)(2))
- Thermal discharges (CWA Section 316(a))
- Discharges to marine waters (CWA Section 301(h))]

EPA added NPDES variance request data to <u>Appendix A</u> as these data would allow EPA and states to better track variance requests and related statuses for the NPDES program. The following are the NPDES variance request data:

- Variance Type
- Variance Request Version
- Variance Status
- Variance Submission Date
- Variance Action Date
- Public Notice of Section 316(a) Requests

EPA drafted a new payload to collect these Phase 2 data (NPDESVariancePermitSubmission) and shared this payload with states for their review. EPA added this payload to the ICIS Data Submission service (v5.14). EPA routes these data to the OECA Data Store as part of Phase 2 implementation.

4.0 PHASE 2 UPDATES TO THE ICIS DATA SUBMISSION SERVICE

EPA help bi-weekly meetings with states to discuss the inclusion of Phase 2 data elements into the ICIS Data Submission service. These bi-weekly meetings started in January 2023 and ended in November 2024. EPA and states discussed options for adding new payloads and updating existing payloads for the incorporation of Phase 2 data elements. EPA Regions and states were provided four to six weeks to review each set of changes and to submit any comments or suggestions to EPA. EPA incorporated these changes and published updates to the service in four revisions to allow for state testing (as shown below). Version 5.14 of the service includes all the data elements listed in the NPDES eRule (Appendix A to 40 CFR part 127). EPA recommends that states start using Version 5.14 to test their data flows in advance of the NPDES eRule data sharing compliance deadline (December 21, 2025). EPA routes Phase 2 data to either ICIS-NPDES or the OECA Data Store as noted in Table 1

NPDES Program Data	Notes	Schema Version Number (Status)
Sewer Overflow Event	EPA provided states with example XML, reference data,	5.11
Report and POTW Permit Data	and related data entry guidance in September 2023. Comments were due to EPA on 17 November 2023.	(Released
Data	EPA provided states with example XML, reference data,	19 March 2024) 5.12
Industrial and Construction Stormwater Permit Data	and related data entry guidance in January 2024. Comments were due to EPA on 29 February 2024.	(Released 14 June 2024)
MS4 Annual Report and Permit Data	EPA provided states with example XML, reference data, and related data entry guidance in April 2024. Comments were due to EPA on 31 May 2024.	5.13 (Released 8 October 2024)
Pretreatment Data	EPA provided states with example XML, reference data, and related data entry guidance in July 2024. Comments were due to EPA on 6 September 2024.	5.14 (Released 24 January 2025)
CAFO Annual Report and Permit Data	EPA provided states with example XML, reference data, and related data entry guidance in September 2024. Comments were due to EPA on 18 October 2024.	5.14 (Released 24 January 2025)
Biosolids Annual Report and Permit Data	EPA provided states with example XML, reference data, and related data entry guidance in October 2024. Comments were due to EPA on 15 November 2024.	5.14 (Released 24 January 2025)
CWA 316(b) and NPDES Variance Request Data	EPA provided states with example XML, reference data, and related data entry guidance in October 2024. Comments were due to EPA on 15 November 2024.	5.14 (Released 24 January 2025)

5.0 OUTREACH AND COORDINATION

EPA relies on on-going and frequent collaboration with EPA Regions and approves states. The following provides more information on the various EPA-state workgroups that help with NPDES eRule Phase 2 implementation. These workgroups usually meet on a monthly schedule.

Technical Workgroup Name	Members	Start Month	Status
EPA NPDES eRule Regional WG	EPA HQ and EPA Regional Staff	January 2016	Ongoing (Meetings Scheduled as Needed)
EPA-state NPDES Noncompliance Report (NNCR) WG	EPA HQ, EPA Reg. Staff, State Staff	May 2016	Ongoing (Meetings Scheduled as Needed)
EPA-state NPDES eReporting Tool (NeT) WG	EPA HQ, EPA Regional Staff, State Staff	May 2017	Ongoing (Monthly Meetings)
EPA-state ICIS Data Submission Service WG	EPA HQ, EPA Regional Staff, State Staff	January 2023	Ongoing (Meetings Scheduled as Needed)

The EPA-state ICIS Data Submission Service workgroup provides a venue for EPA and states to collaborate on updating the ICIS Data Submission service to support Phase 2 data sharing.

EPA also provides frequent updates using the following workgroups and meetings:

- ICIS user community (monthly calls),
- EPA NPDES Permitting and Enforcement Managers (monthly calls), and
- Various sector specific calls (e.g., EPA Regional and state pretreatment monthly calls).

Please contact Mr. Carey Johnston (<u>johnston.carey@epa.gov</u>) if you would like to participate in any of these workgroups.

APPENDIX – PAYLOADS ADDED OR UPDATED

1. Overview

EPA Office of Compliance is working collaboratively with EPA Regions and states to help implement the 2015 NPDES eRule. In particular, EPA worked with states over a two-year process (2017 to 2019) to develop implementation guidance called "Technical Papers." These papers support implementation of the final rule by providing further information for the data elements identified in the final rule (Appendix A to 40 CFR part 127). These papers provide additional guidance for the information submitted during NPDES permit applications [including Notice of Intent to Discharge (NOI) submissions], compliance monitoring data submitted by NPDES-regulated entities, and compliance monitoring data submitted by EPA or states. EPA used these technical papers to develop specific requirements for updates to the ICIS Data Submission data sharing service.

EPA continued this collaboration by holding bi-weekly meetings with EPA Regions and states to discuss the inclusion of Phase 2 data elements into the ICIS Data Submission service. These bi-weekly meetings started in January 2023 and ended in November 2024. EPA and states discussed options for adding new payloads and updating existing payloads for the incorporation of Phase 2 data elements. EPA Regions and states were provided four to six weeks to review each set of changes and to submit any comments or suggestions to EPA. EPA incorporated these changes and published updates to the service in four revisions to allow for state testing (as shown in Table 1). Version 5.14 of the service includes all the data elements listed in the NPDES eRule (Appendix A to 40 CFR part 127). EPA recommends that states start using Version 5.14 to test their data flows in advance of the NPDES eRule data sharing compliance deadline (December 21, 2025). EPA routes Phase 2 data to either ICIS-NPDES or to the OECA Data Store as shown below and in Table 1.

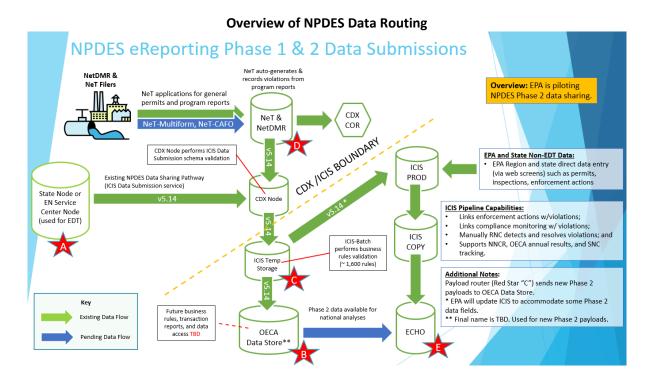


 Table 1: Overview of Updates to ICIS Data Submission Service for Phase 2 Data

NPDES Program Data	New Payloads (added since 19 March 2024) (payloads in bold are routed to OECA Data Store)	Existing Payloads (prior to 19 March 2024) (payloads in bold are routed to OECA Data Store)	Schema Version Number (Status)
Sewer Overflow Event Report and POTW Permit Data	 SewerOverflowBypassEventReportSubmission CollectionSystemPermitSubmission CSOLongTermControlPlanSubmission POTWTreatmentTechnologyPermitSubmission 	• None	5.11 (Released 19 March 2024)
Industrial and Construction Stormwater Permit Data	• None	 Add "Residual Designation Determination Code" to: BasicPermitSubmission, GeneralPermitSubmission, and MasterGeneralPermitSubmission Update construction and industrial stormwater data on the following permit component payloads: SWConstructionPermitSubmission SWIndustrialPermitSubmission 	5.12 (Released 14 June 2024)
MS4 Annual Report and Permit Data	 SWMS4AnnualProgramReportSubmission SWMS4PermitSubmission CopyMGPMS4RequirementSubmission 	• None	5.13 (Released 8 October 2024)
Pretreatment Data	POTW Pretreatment Program Report • PretreatmentProgramReportSubmission	 Add "Industry User Type Code" to: BasicPermitSubmission [for use when Permit Type is Individual IU Permit (IIU)] Update pretreatment data on the following payload: PretreatmentPermitSubmission 	5.14 (Released 24 January 2025)
CAFO Annual Report and Permit Data			5.14 (Released 24 January 2025)
Biosolids Annual Report and Permit Data	• None	 BiosolidsAnnualProgramReportSubmission BiosolidsPermitSubmission 	5.14 (Released 24 January 2025)
CWA 316(b) and NPDES Variance Request Data	CWA Section 316(b) Program Report NPDES Variance Request CWA316bProgramReportSubmission NPDESVariancePermitSubmission	Update CWA 316(b) data on the following payload: • PermittedFeatureSubmission	5.14 (Released 24 January 2025)

2. Payloads Routed to the OECA Data Store

The following payloads are routed to the OECA Data Store. All other payloads (even deprecated payloads) continue to be routed to ICIS-NPDES. See the <u>following website</u> for more details. States can now start sharing these payloads with EPA.

Version 5.11 - Updated March 19, 2024

- Sewer Overflow/Bypass Event Report ("SewerOverflowBypassEventReportSubmission")
- Collection System Permit Component ("CollectionSystemPermitSubmission")
- Pretreatment Program Report ("PretreatmentProgramReportSubmission")
- CSO Long Term Control Plan Information ("CSOLongTermControlPlanSubmission")

Version 5.13 - Released October 8, 2024

- MS4 Annual Program Report ("SWMS4AnnualProgramReportSubmission")
- MS4 Permit Component payload ("SWMS4PermitSubmission")
- Copy MS4 Master General Permit Requirement ("CopyMGPMS4RequirementSubmission")

Version 5.14 – Released January 24, 2025

- Biosolids Permit Component ("BiosolidsPermitSubmission")
- Biosolids Annual Program Report ("BiosolidsAnnualProgramReportSubmission")
- Pretreatment Program Report ("PretreatmentProgramReportSubmission")
- CAFO Annual Program Report ("CAFOAnnualProgramReportSubmission")
- CWA 316(b) Annual Program Report ("CWA316bProgramReportSubmission")
- NPDES Variance Information ("NPDESVariancePermitSubmission")

3. Payloads Routed to ICIS-NPDES

All other payloads in the <u>ICIS Data Submission</u> data sharing service (even deprecated payloads) are routed to ICIS-NPDES. The following summarizes the changes to payloads that were in use prior to the release of Version 5.11 (March 19, 2024).

Version 5.12 - Released June 14, 2024

Added "Residual Designation Determination Code" to:

BasicPermitSubmission, GeneralPermitSubmission, and MasterGeneralPermitSubmission

Added Phase 2 construction and industrial stormwater data on the following permit component payloads:

- SWConstructionPermitSubmission
- SWIndustrialPermitSubmission

Version 5.14 - Released January 24, 2025

Added Phase 2 data on the pretreatment permit component payload:

PretreatmentPermitSubmission

Added Phase 2 data for SIU/CIU designations on the basic permit payload (for when "PermitTypeCode" is set to "IIU"):

BasicPermitSubmission

Added Phase 2 data for the CAFO permit component:

CAFOPermitSubmission

Added Phase 2 data for the CAFO inspections on:

- ComplianceMonitoringSubmission
- FederalComplianceMonitoringSubmission

Updated reference data in ICIS-NPDES for the Facility Classification XML tag ("FacilityClassification"). The NPDES eRule required EPA Regions and states to identify concentrated aquatic animal production facilities. EPA and states agreed to use this XML tag for this requirement. This update was done without schema changes. This XML tag is included on the following payloads:

- BasicPermitSubmission
- GeneralPermitSubmission

Updated reference data in ICIS-NPDES for the Facility Site Tribal Land XML tag ("TribalLandCode"). The NPDES eRule required EPA Regions and states to identify facilities in Indian Country. This update changed the length of the maximum length of the code in the schema from 4 (old codes) to 9 (new codes). EPA will reach out to EPA Regions and states to help them migrate from the old codes to the new codes. This XML tag is included on the following payloads:

- BasicPermitSubmission
- GeneralPermitSubmission

Added the Penalty Amount Collected XML tag ("CashCivilPenaltyCollectedAmount") to the formal enforcement action payload.

FormalEnforcementActionSubmission

Added CWA 316 data on the permitted feature payload:

PermittedFeatureSubmission

4. Payloads Added to the ICIS Data Submission Service for NPDES eRule Implementation

The following is the list of payloads that EPA added to the ICIS Data Submission service for NPDES eRule implementation:

NPDES Program Area	Payload	Release Version	Data Source
Sewer Overflow and Bypass Events	Sewer Overflow Bypass Event Report Submission	5.11	Program Report
Collection System Information	CollectionSystemPermitSubmission	5.11	EPA Regions and states, Permit Applications
POTW Treatment Technology Information	POTWTreatmentTechnologyPermitSubmission	5.11	EPA Regions and states, Permit Applications
CSO Long Term Control Plans	CSOLongTermControlPlanSubmission	5.11	EPA Regions and states
MS4 Permit Information	SWMS4PermitSubmission CopyMGPMS4RequirementSubmission	5.13	EPA Regions and states, Permit Applications
MS4 Program Report SWMS4AnnualProgramReportSubmission		5.13	Program Report
Pretreatment Program Annual Report	PretreatmentProgramReportSubmission	5.14	Program Report
Biosolids Annual Program Report	BiosolidsAnnualProgramReportSubmission	5.14	Program Report
CAFO Annual Program Report	CAFOAnnualProgramReportSubmission	5.14	Program Report
CWA 316(b) Program Report	CWA316bProgramReportSubmission	5.14	Program Report
NPDES Variance Information	NPDESVariancePermitSubmission	5.14	EPA Regions and states, Permit Applications

5. ICIS Data Submission Payloads Updated for NPDES eRule Implementation

The following is the list of ICIS Data Submission service payloads that EPA updated for NPDES eRule implementation:

NPDES Program Area	Payload	Release Version	Data Source
Basic Permit and Facility Information	BasicPermitSubmission GeneralPermitSubmission MasterGeneralPermitSubmission	5.12, 5.14	EPA Regions and states, Permit Applications
Construction Stormwater Permit Information	SWConstructionPermitSubmission	5.12	EPA Regions and states, Permit Applications
Industrial Stormwater Permit Information	SWIndustrialPermitSubmission	5.12	EPA Regions and states, Permit Applications
Pretreatment Program Information	PretreatmentPermitSubmission	5.14	EPA Regions and states, Permit Applications
CAFO Permit Information	CAFOPermitSubmission	5.14	EPA Regions and states, Permit Applications
CAFO Inspection Information	ComplianceMonitoringSubmission FederalComplianceMonitoringSubmission	5.14	EPA Regions and states
CWA 316(b) Permit Information	PermittedFeatureSubmission	5.14	EPA Regions and states, Permit Applications

6. ICIS Data Submission Payloads Deprecated with NPDES eRule Implementation

The following is the list of deprecated ICIS Data Submission service payloads with NPDES eRule implementation. EPA recommends that states no longer use these payloads and use the replacement payloads as shown below.

No.	Deprecated Payload	Replacement Payload
1	Biosolids Program Report	Biosolids Annual Program Report
-	("BiosolidsProgramReportSubmission")	("BiosolidsAnnualProgramReportSubmission")
2	CAFO Annual Report	CAFO Annual Program Report
	("CAFOAnnualReportSubmission")	("CAFOAnnualProgramReportSubmission")
3	CSO Event Report	Sewer Overflow/Bypass Event Report
	("CSOEventReportSubmission")	("SewerOverflowBypassEventReportSubmission")
4	CSO Permit Component	Collection System Permit Component
-	("CSOPermitSubmission")	("CollectionSystemPermitSubmission")
5	Local Limits Report	Pretreatment Program Report
	("LocalLimitsProgramReportSubmission")	("PretreatmentProgramReportSubmission")
6	Pretreatment Performance Summary	Pretreatment Program Report
	("PretreatmentPerformanceSummarySubmission")	("PretreatmentProgramReportSubmission")
7	SSO Annual Report	Sewer Overflow/Bypass Event Report
,	("SSOAnnualReportSubmission")	("SewerOverflowBypassEventReportSubmission")
8	SSO Event Report	Sewer Overflow/Bypass Event Report
	("SSOEventReportSubmission")	("SewerOverflowBypassEventReportSubmission")
9	SSO Monthly Event Report	Sewer Overflow/Bypass Event Report
	("SSOMonthlyEventReportSubmission")	("SewerOverflowBypassEventReportSubmission")
10	Storm Water Event Report	None
10	("SWEventReportSubmission")	None
11	Storm Water MS4 Large Permit Component	MS4 Permit Component
	("SWMS4LargePermitSubmission")	("SWMS4PermitSubmission")
12	Storm Water MS4 Program Report	MS4 Annual Program Report
14	("SWMS4ProgramReportSubmission")	("SWMS4AnnualProgramReportSubmission")
13	Storm Water MS4 Small Permit Component	MS4 Permit Component payload
13	("SWMS4SmallPermitSubmission")	("SWMS4PermitSubmission")
14	DMR Program Report Linkage Submission	None
14	("DMRProgramReportLinkageSubmission")	None

Rationale:

1. Biosolids Program Report

EPA replaced the Biosolids Program Report payload ("BiosolidsProgramReportSubmission") with the Biosolids Annual Program Report payload ("BiosolidsAnnualProgramReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

2. CAFO Annual Report

EPA replaced the CAFO Annual Report payload ("CAFOAnnualReportSubmission") with the CAFO Annual Program Report payload ("CAFOAnnualProgramReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

3. CSO Event Report

EPA replaced the CSO Event Report payload ("CSOEventReportSubmission") with the Sewer Overflow/Bypass Event Report payload ("SewerOverflowBypassEventReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

4. CSO Permit Component

EPA replaced the CSO Permit Component payload ("CSOPermitSubmission") with the Collection System Permit Component payload ("CollectionSystemPermitSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

5. Local Limits Report

EPA replaced the Local Limits Report payload ("LocalLimitsProgramReportSubmission") is deprecated. Information about local limits for approved local pretreatment programs is now provided on the Pretreatment Program Report payload ("PretreatmentProgramReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

6. Pretreatment Performance Summary

EPA replaced the Pretreatment Performance Summary payload ("PretreatmentPerformanceSummarySubmission") with the Pretreatment Program Report payload ("PretreatmentProgramReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

7. SSO Annual Report

EPA replaced the SSO Annual Report payload ("SSOAnnualReportSubmission") with the Sewer Overflow/Bypass Event Report payload ("SewerOverflowBypassEventReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

8. SSO Event Report

EPA replaced the SSO Event Report payload ("SSOEventReportSubmission") with the Sewer Overflow/Bypass Event Report payload ("SewerOverflowBypassEventReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

9. SSO Monthly Event Report

EPA replaced the SSO Monthly Event Report payload ("SSOMonthlyEventReportSubmission") with the Sewer Overflow/Bypass Event Report payload ("SewerOverflowBypassEventReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

10. Storm Water Event Report

EPA deprecated the Storm Water Event Report payload ("SWEventReportSubmission"). Please discontinue using this payload. EPA notes that these data are <u>not</u> covered by the NPDES eRule data sharing requirements (40 CFR 127.23).

11. Storm Water MS4 Large Permit Component

EPA replaced the Storm Water MS4 Large Permit Component payload ("SWMS4LargePermitSubmission") with the MS4 Permit Component payload ("SWMS4PermitSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

12. Storm Water MS4 Program Report

EPA replaced the Storm Water MS4 Program Report payload ("SWMS4ProgramReportSubmission") with the MS4 Annual Program Report payload ("SWMS4AnnualProgramReportSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

13. Storm Water MS4 Small Permit Component

EPA replaced the Storm Water MS4 Small Permit Component payload ("SWMS4SmallPermitSubmission") with the MS4 Permit Component payload ("SWMS4PermitSubmission"). EPA made this change to help states share the NPDES program data in conformance with the NPDES eRule data sharing requirements (40 CFR 127.23).

14. DMR Program Report Linkage Submission

EPA deprecated the DMR Program Report Linkage Submission ("DMRProgramReportLinkageSubmission") payload. Please discontinue using this payload. EPA notes that these data are not covered by the NPDES eRule data sharing requirements (40 CFR 127.23).