Region 8 and Wyoming's journey working together to resolve data issues

SNC Symposium 2

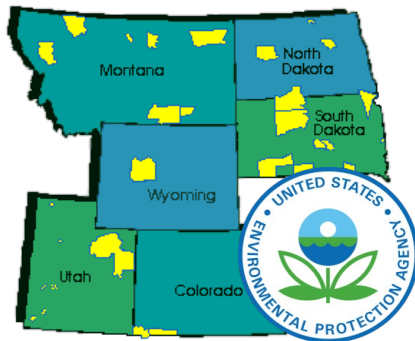**Dallas, TX**

January 2020

Background

- <u>EPA Region 8</u>

- Direct ICIS-NPDES User

- NetDMR

- <u>Wyoming</u>

- Batch State (daily*)

- State WYPDES Database

- eDMR

- Universe of permits
  - ~703 individual
  - ~1645 generals

- 2 data people

{ICIS Phase 3 – December 2012}

Hello…….We have a problem

- My Initial focus as Region 8 ICIS-NPDES Coordinator was on EPA DI data cleanup in ICIS. I responded to state phone calls and emails, but only dived into state data when assistance requested.

- One day an EPA Question? Why is the WY state QNCR not showing any DMRs? Join us on the next EPA/WY Quarterly Enforcement Call

Let me check on that!
- – Check QNCR and ICIS and notice DMR non-receipt turned Off.
- – Pull a Wyoming Batch Report to check submission start and rejections.

Next Steps:
- – R8 Conference call with Wyoming to turn DMR non-receipt back on.
- – Wyoming offers to host meeting to discuss data quality issues.

Wyoming DEQ hosts initial Data Quality Meeting July 2016

Review of ECHO and ICIS batch report and what it shows for Wyoming (Josie)

Overview of WYPDES Batch EDT Process and QA (Wyoming)

Comparing ICIS and WYPDES system where discrepancies may exist.

- Understanding batch errors and how to fix.
- Does universes match metrics for current FY for majors/minors? (# permits, DMRs expected, # inspections, # enforcement actions, etc.)
- Look at Majors
  - Does ICIS match WYPDES? (i.e. permits, limits, dmrs, compliance schedules, inspections, single events, enforcement actions)
  - Look at one facility at a time and compare results
  - What does batch error report tell us.
- Look at Minors
  - Compare select minors based on metrics and batch results.
- Other areas of interest or concern? Discuss findings and next steps.

Wyoming – EPA Monthly Data Calls

Share ICIS reports

What does WYPDES show?

How does ICIS work?

Discuss Data Findings and next steps

Review Data Again in ICIS/WYPDES

Data Accuracy and Completeness Updates

Contractor analysis comparing data

Is it a data flow issue?

Move into Production

State Contractor script updates

Permit Coding Error?

Data Completeness Issue?

Verify updates within State Test and ICIS Test

Special Thanks to Wyoming for making time to work on data quality reviews

Step by Step addressing batch issues. ....That fixed some....Next...	Script* Logic Updated
Batch Internal Flow issue where data held due to Node script logic	✓
Permit Re-issuances filter kept historical data from sending DMR data regardless of permit version.	✓
Permit Modifications creating a duplicate limit set in ICIS. Looked fine in WYPDES, but ICIS was wrong.	✓
Inactive Limit Sets in WYPDES were not inactive in ICIS as needed.	✓
WYPDES Admin Role changes required to control certain WYPDES edits	✓
Parameter Limit value Length Issue. Correct in WYPDES but too long for ICIS.	✓State Modified Permit
E-DMR data was not always being captured within batch and submitted to ICIS	✓

*Wyoming Contractor

Wyoming SNC Data Quality Tracking

- Batch Issues: Resolved as of Feb 2019
  - Batch script changes made by Wyoming Contractor to ensure all data flows
  - RNC Rerun for last three years completed by ICIS Support (NOV 2018)

- eDMR Issues: Resolved as of March 2019
  - Wyoming updated internal process to query and follow-up on eDMRs sitting in incomplete status
  - eDMR user training improvements

- Invalid NODI Issues: Ongoing
  - NODI Code 8 – Other (see Comments) includes a valid reason
  - WYPDES can not flow to admin resolve in ICIS if determined valid.

Invalid NODI Code
8 – Other (See Comments)

- State provides DMR parameter list to be admin resolved in ICIS.

- Region agrees to help with manual submission to ICIS

- EDT file prepared for 9559 rows of DMR data for 60 facilities

- Submit XML to ICIS test, then ICIS production after approval by Wyoming (Dec 2019)

- Run "Automatic Corrected RNC" for current quarter (2019Q4)

- 40 facilities no longer SNC based on updated accurate data.

- Note: manual batch submission to admin resolve would have to continue each quarter to keep data accurate

Why so many DMR Non-Receipt Violations?

- Failure of Facility to submit DMRs on time or not at all

- Errors with how permit requirements entered into database

- Issues with e-DMR reporting system
    - Server issues/Connection Hiccups
    - Facility not fully completing the e-signature/submit process

- Facility reporting using "invalid" NODI Codes

- ICIS RNC Compliance Status not reflecting correctly

- Address Batch rejections

- Issues with data flow

Known Data Problems

- **Primary Data Alert:** Wyoming is experiencing issues affecting the upload of data to the national program system ICIS. Discharge Monitoring Report and facility compliance status data displayed on ECHO may not be accurate. Specifically, facilities may appear to be in noncompliance for failing to submit required discharge monitoring reports, which may or may not be the case. Wyoming is actively working to resolve the issue.

Addressing Data Quality/Completeness

Tools for Evaluating DMR Non-Receipt Violations

- ICIS Reports
  - QNCR Coordinators
  - Custom DMR reports (e.g. Missing DMRs, Late DMRs)
  - Custom unresolved violations report (e.g. DMR submission, Invalid Nodi)
  - Limit Summary to check permit coding in ICIS

- Data Verification/SRF Metrics

- ECHO Data Visualization Gallery
  - NPDES eRule Readiness
  - SNC DMR non-receipt
  - SNC Dashboards (e.g. Cat 1 violations, SNC Realtime)

What's Next?

- Need to Schedule re-run RNC based on historical data cleanup to make sure compliance status is correct in ICIS

- Continue to manual batch admin resolved for Invalid NODI Code 8 on a quarterly basis to ICIS with assistance from Region 8.

Future of WYPDES and eDMR:

- Due to age of state systems, No additional investments to improve WYPDES database and eDMR will be made

- Wyoming to move to a new database and eDMR system due to the high cost of maintaining existing system. Date TBD.

Lessons Learned

- State systems are different than ICIS, yet Batch States still need to understand ICIS

- ICIS changes can impact data flow

- Changes to State system can impact data flow

- ICIS RNC Compliance Status always out of sync if older data shared

- State focused on State system and not ICIS

- EPA focused on ICIS and no easy way to know how well ICIS matches State system.

- Communication is key in identifying and addressing data quality

Region 8 Monthly NPDES State Data Calls

For Anything NPDES Data Related.

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All State Open Discussion on Questions or issues with:

ICIS
EDT/Batch/Data Sharing
E-Reporting
ECHO
or Data Quality.

{on the second Wednesday of every Month}

Since 8/2015

Addressing Data Quality/Completeness

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Addressing Data Quality/Completeness

14

Any Questions?