



Air Quality System (AQS) Database Basics

March 30, 2021 (Webinar 2)

Tribal Air Monitoring



Support Center

NAU NORTHERN ARIZONA
UNIVERSITY



Webinar Logistics



- Webinar is being recorded – URL for the recording will be in post-webinar email and posted at [http://www7.nau.edu/itep/main/training/Webinars air2021](http://www7.nau.edu/itep/main/training/Webinars_air2021)
- Please complete the webinar feedback survey – Link for the feedback survey will be in post-webinar email
- Certificates will be emailed to participant

Thank you for joining the webinar!

Tuesday, March 30, 2021; 10:00am-11:30am Pacific Time

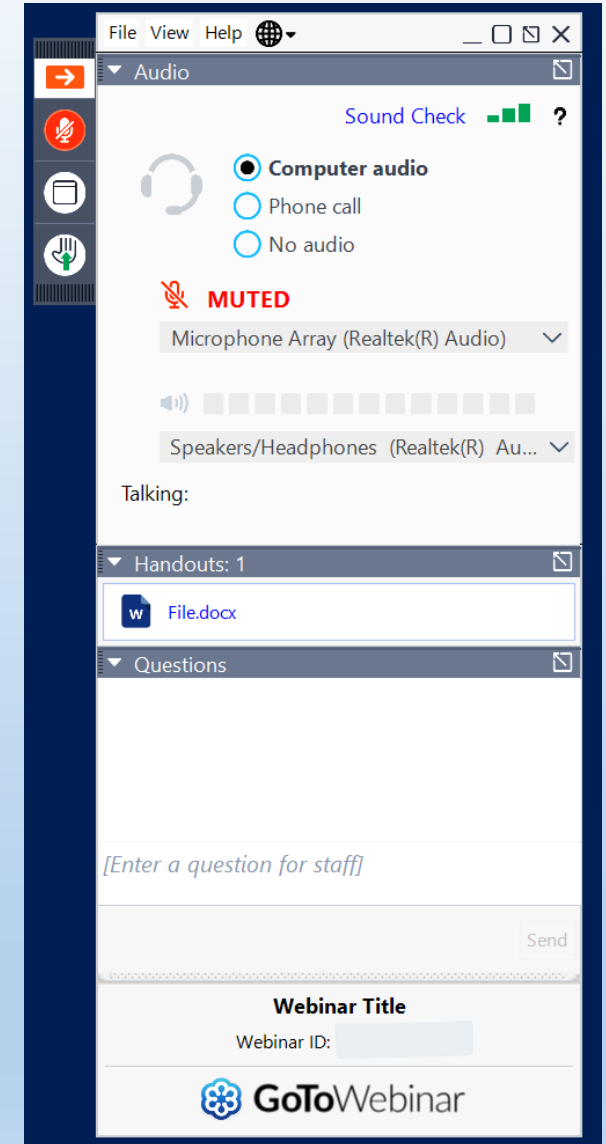
 Submit questions in the "Questions" pane

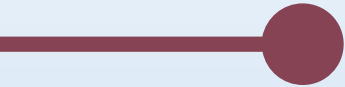
 Raise your hand if you would like to be unmuted

 Download files from the "Handouts" pane



Presented by the Institute for Tribal Environmental Professionals
American Indian Air Quality Training Program
Questions? Contact Christal.Black@nau.edu





Polling Questions

Poll Question 1



- Which of the following best describes your role?
 - Environmental Staff
 - Community or Tribal Leader
 - Federal or State Partner
 - Other

Poll Question 2



- Did you attend AQS Basics Webinar 1?
 - Yes
 - No
 - I'll watch the webinar recording later

Presenters



Michael King
NAU ITEP TAMS Center



Michael.King@nau.edu

Chris Chapman
US EPA OAQPS



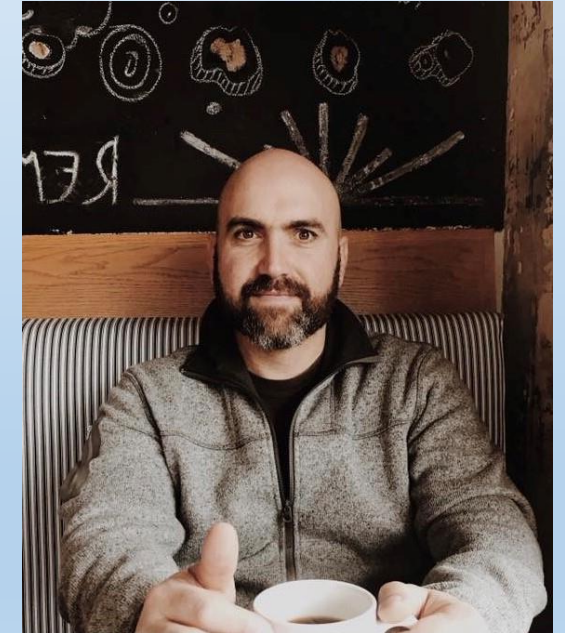
Chapman.Chris@epa.gov

Stuart Gray
US EPA OAQPS



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Michael Brooks
US EPA OAQPS



Brooks.MichaelS@epa.gov

Overview



- Creating a Site and Monitor in AQS
- How to Format and Load Data to AQS (AQS Batch Data Submissions)
- Correcting Data in AQS
- How to Load Quality Assurance Data to AQS
- US EPA AQS Resources & Training Materials

Launch the AQS Database & Login

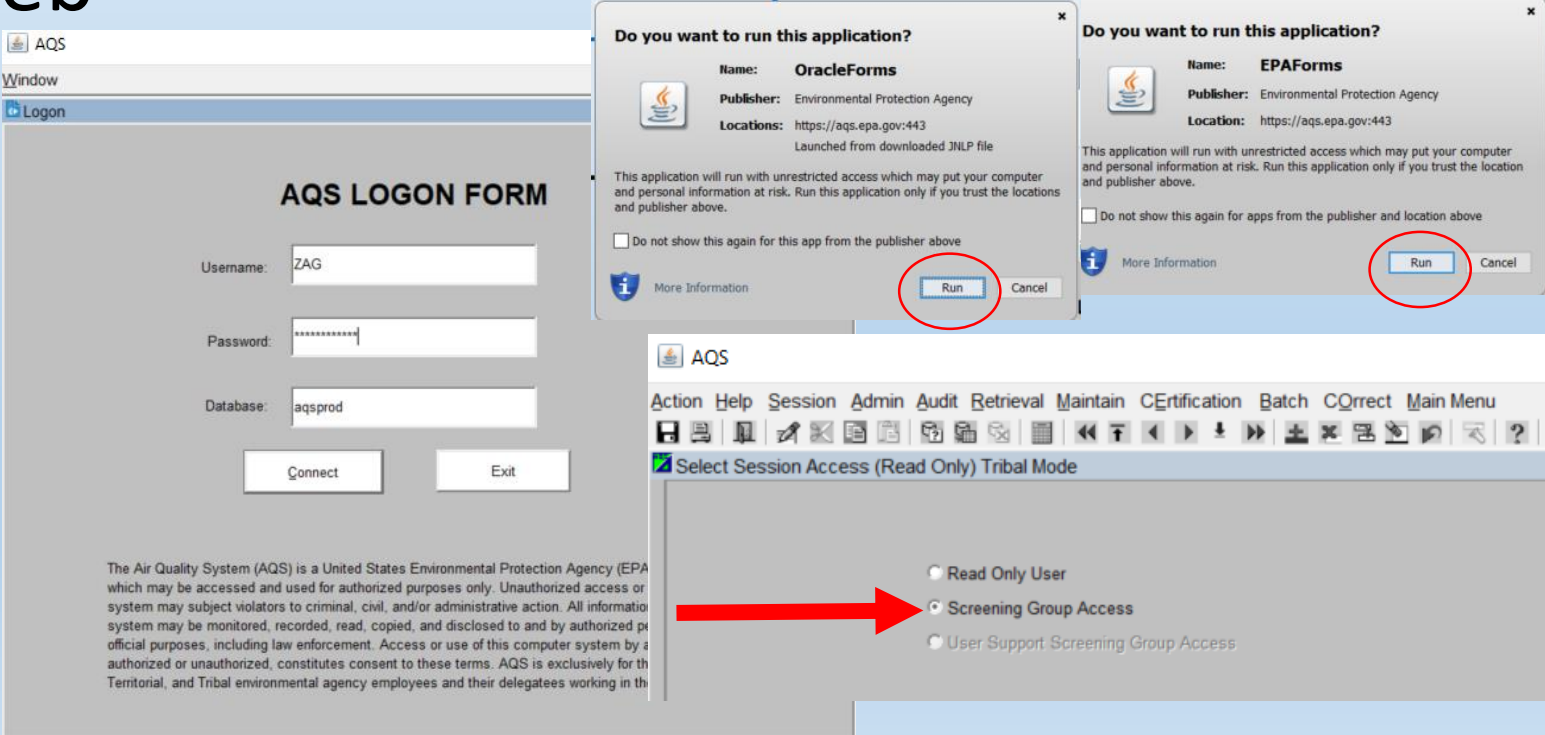
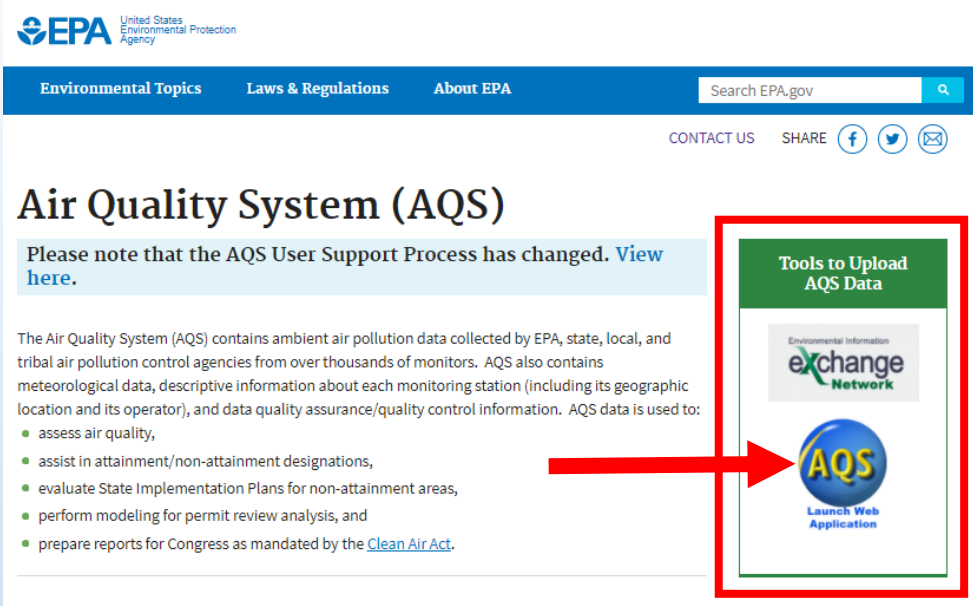
- Go to the AQS website:
<https://www.epa.gov/aqs>

- Click on “AQS Launch Web Application”

- Login to AQS

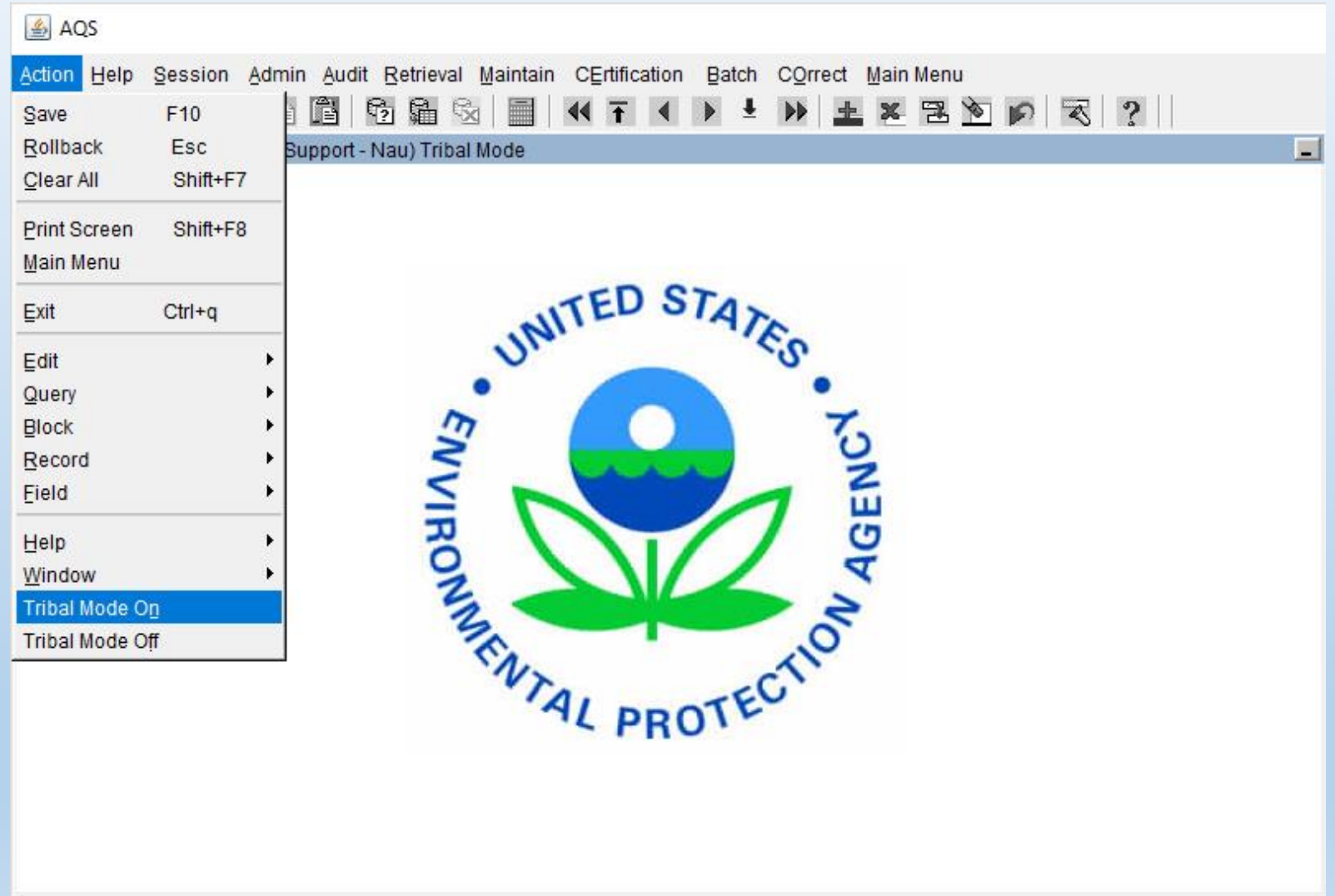
EISD@epa.gov
1-866-411-4EPA – (4372)

- Select Screening Group Access



AQS Main Menu (Tribal Mode)

- Once logged into AQS, the **Main Menu** will appear
- Be sure to select Tribal Mode
- Click on “**Action**” then “**Tribal Mode On**”
- Allows federally recognized Tribal Codes to be visible



How to Create a Site in AQS

Before Creating a Site in AQS, you'll need to know

- **Tribal Code**
- **State & County + unique Site ID**
- **Latitude & Longitude** (in decimal degrees)
- **Horizontal Datum** (usually a setting on your GPS; if using Google Earth, WGS84)
- **Horizontal Method** (the method used to determine the lat/long)
- **Horizontal Accuracy** (the accuracy as a range of the lat/long in meters)
- **Vertical Measure** (the height, in meters, of the site above/below mean sea level)
- **Vertical Datum** (usually a setting on your GPS)
- **Street Address of the site**
- **Land Use Type** (within a $\frac{1}{4}$ mile of the site, is it residential, agricultural, rural)
- **Location Setting** (Urban/City Center, suburban, rural?)
- **Site Established Date** (date must be before or on the date any sampling began)
- Local Site Name (Optional)
- **Your Tribe** is presumably the one supporting this site, so it would be the “**supporting agency**”

AQS e-Learning: How to Create a Site in AQS

- AQS provides free, online training to help users learn to effectively navigate AQS and build their skills
- Go to AQS Website and click on “**Training**” then under e-Learning click on “**Create a New Site**”

e-Learning

1. [eLearning - How to Login to AQS](#)(1 KB)
2. [eLearning - Batch Loading through the ENSC](#)(2 KB)
3. [eLearning - Create a New Site](#)(2 KB)
4. [eLearning - Create a New Monitor](#)(2 KB)

AQS Support

- [New User Registration](#)
- [How to Obtain User Support](#)
- [Training](#)
- [AQS News \(RSS\)](#)
- [Events Calendar](#)

Documentation

- [All Manuals and Guides](#)
- [AQS Users Guide](#)
- [AQS Code Lists](#)
- [Data Dictionary](#)
- [Data Coding Manual](#)

Additional Resources

- [Monitoring and Policy Memos](#)
- [Memos About Reporting Pollutants](#)
- [Quality Assurance & Audit Memos](#)
- [Archive Data](#)
- [Related Resource Links](#)

Obtaining AQS Data

- [How to Obtain AQS Data](#)
- [API](#)
- [About the AQS Data Mart](#)
- [Pre-Generated Data Files](#)
- [AirData](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.

AQS Training

Need help with AQS? Want to learn something new?

AQS provides free, online training to help users learn to effectively navigate AQS and build their skills. Get your questions answered! Learn from AQS experts, see engaging demos, explore scenarios, and get the training you need to apply your new skills right away.

Get familiar with features in minutes. Watch short, engaging videos.

You can see the ever growing list of instructor videos and choose which ones you want to watch, or you can view multiple videos in a row about a particular topic. Use the number lists to watch videos that build upon each other.

Video

1. [Launching AQS in Chrome](#)(4 KB)
2. [How to Log Into AQS](#)(3 KB)
3. [Understanding Batch Submissions](#)(2 KB)
4. [ENSC Login Instructions](#)(3 KB)
5. [Submitting Data through ENSC](#)(3 KB)
6. [AQS Batch Form Overview](#)(2 KB)
7. [Loading Files in AQS](#)(2 KB)
8. [Mapping Monitors](#)(5 KB)
9. [AQS Data Certification](#)(2 KB)

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Create a New Site in AQS

e-Learning Demonstration

AQS Training Website:

<https://aqs.epa.gov/aqsweb/training/Training.html>

The image shows a composite of two screenshots. On the left is the EPA AQS Training website, featuring the EPA logo, navigation tabs for 'Environmental Topics', 'Laws & Regulations', and 'About EPA', and a search bar. Below the navigation is a section for 'Related Topics: Air Quality System (AQS)' with a large heading 'AQS Training' and the text 'Need help with AQS? Want to learn something new?'. On the right is a screenshot of the AQS software interface. The top menu bar includes 'Action', 'Help', 'Session', 'Admin', 'Audit', 'Retrieval', 'Maintain', 'Certification', 'Batch', 'Correct', and 'Main Menu'. The 'Maintain' menu is open, showing options: 'Site', 'Monitor', 'Event', 'Sample Values', 'Blanks', 'Concurrence Ind', 'Site Sampler', 'QA Assessments', 'Monitoring Seasons', 'Linked Sites', and 'Main Menu'. A red arrow points from the 'Site' option in the menu to the left, towards the website content.

How to Create a Monitor in AQS

AQS e-Learning: How to Create a Monitor in AQS

- Go to AQS Website at <https://www.epa.gov/aqs>
- Click on “**Training**” then under e-Learning click on “**Create a New Monitor**”

AQS Support

- [New User Registration](#)
- [How to Obtain User Support](#)
- [Training](#)
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e-Learning

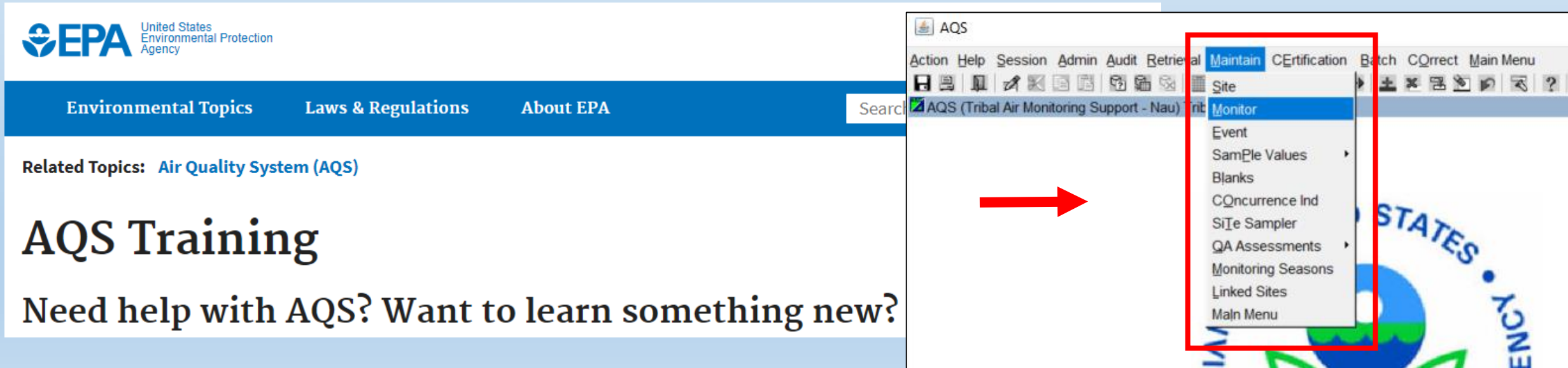
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Poll Question 3



- After viewing the videos do you feel confident enough to establish a site and monitor in AQS on your own?
 - Yes
 - No
 - Maybe

How to Format Data for AQS Upload

VALIDATION (QA) TOOLS

- Data Acquisition Systems such as EDAS, AirVision can validate and format data
- Tribal Data Toolbox & QREST (forthcoming) can validate and format data
- AQS QA Transaction Generator (still available, but no longer supported)
 - <https://19january2017snapshot.epa.gov/aqs/aqs-transaction-generator.html>

EPA United States Environmental Protection Agency

Environmental Topics Laws & Regulations About EPA Search 1/19/17 snapshot

Related Topics: [Air Quality System \(AQS\)](#)

AQS Transaction Generator

The AQS QA Transaction Generator is a tool that facilitates the creation of QA Transactions that are submitted to AQS. The elements that make up the transaction are verified against AQS data and business rules to ensure the transaction is valid upon submittal.

QA Transaction Generator is now built using a universal model and will run on either the 32 bit version or the 64 bit version of Windows.

Download the AQS QA Transaction Generator: [aqsqatransactiongenerator](#) (1 pg, 21 MB, 12/07/2016)

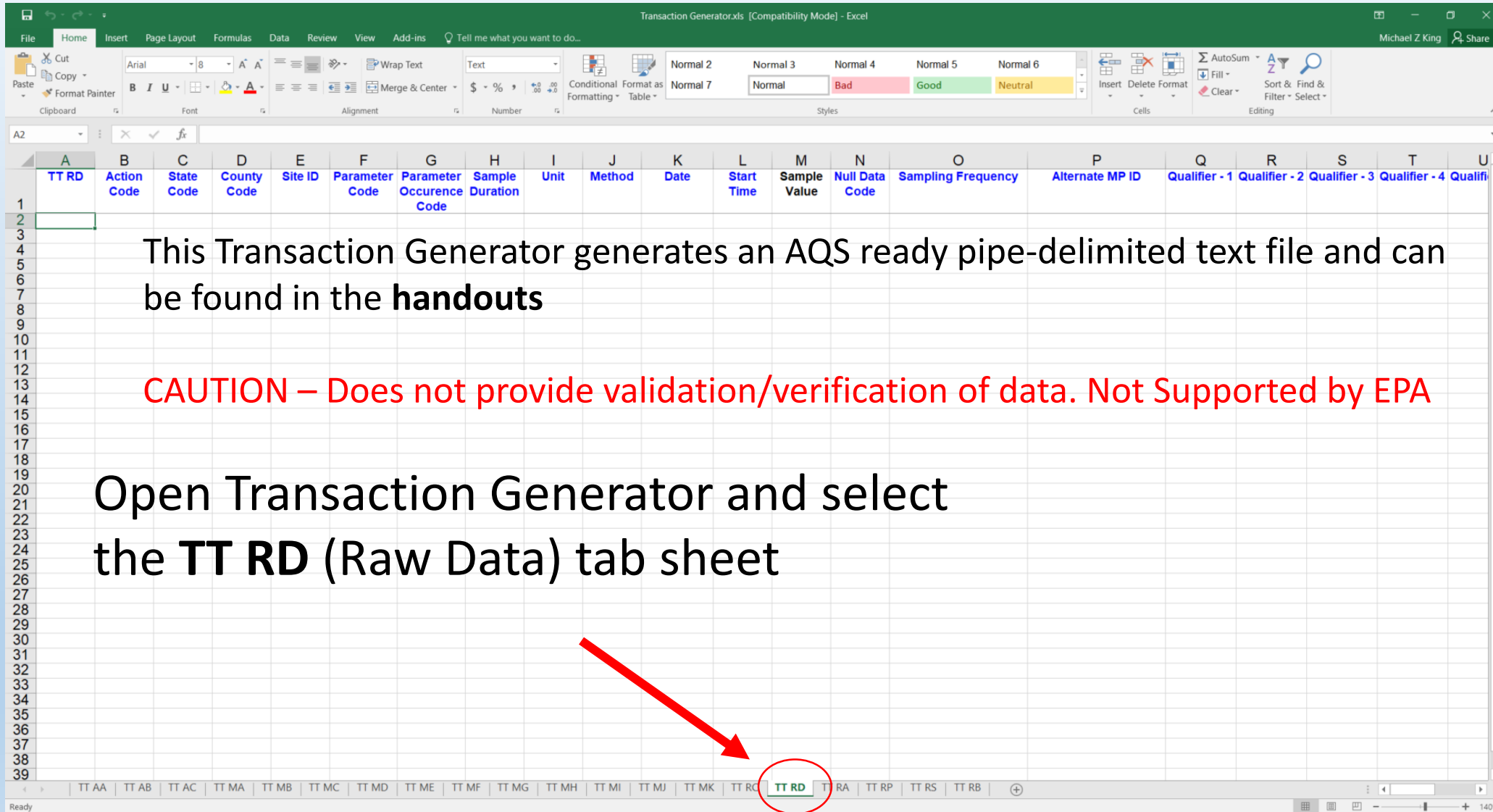
Installation instructions:
You will be prompted to 'Open' or 'Save', select 'Save'. Once the download completes open the folder that you saved the zip file to. Right click on the zip file, at the popup menu select 'Winzip', from there select 'Unzip to here'. After unzipping the installation files launch 'setup.exe' to install the AQS QA Transaction Generator. Click the 'Install' button. The setup program will install a shortcut on your desktop and automatically launch the AQS QA Transaction Generator after the install has completed.

[Contact Us](#) to ask a question, provide feedback, or report a problem.

This is not the current EPA website. To navigate to the current EPA website, please go to www.epa.gov. This website is historical material reflecting the EPA website as it existed on January 19, 2017. This website is no longer updated and links to external websites and some internal pages may not work. [More information](#) »

Example SOP for the QA Transaction Generator will be posted to the NAU ITEP webinar training website:
[http://www7.nau.edu/itep/main/training/Webinars air2021](http://www7.nau.edu/itep/main/training/Webinars_air2021)

Format Data Using Excel-Based Transaction Generator



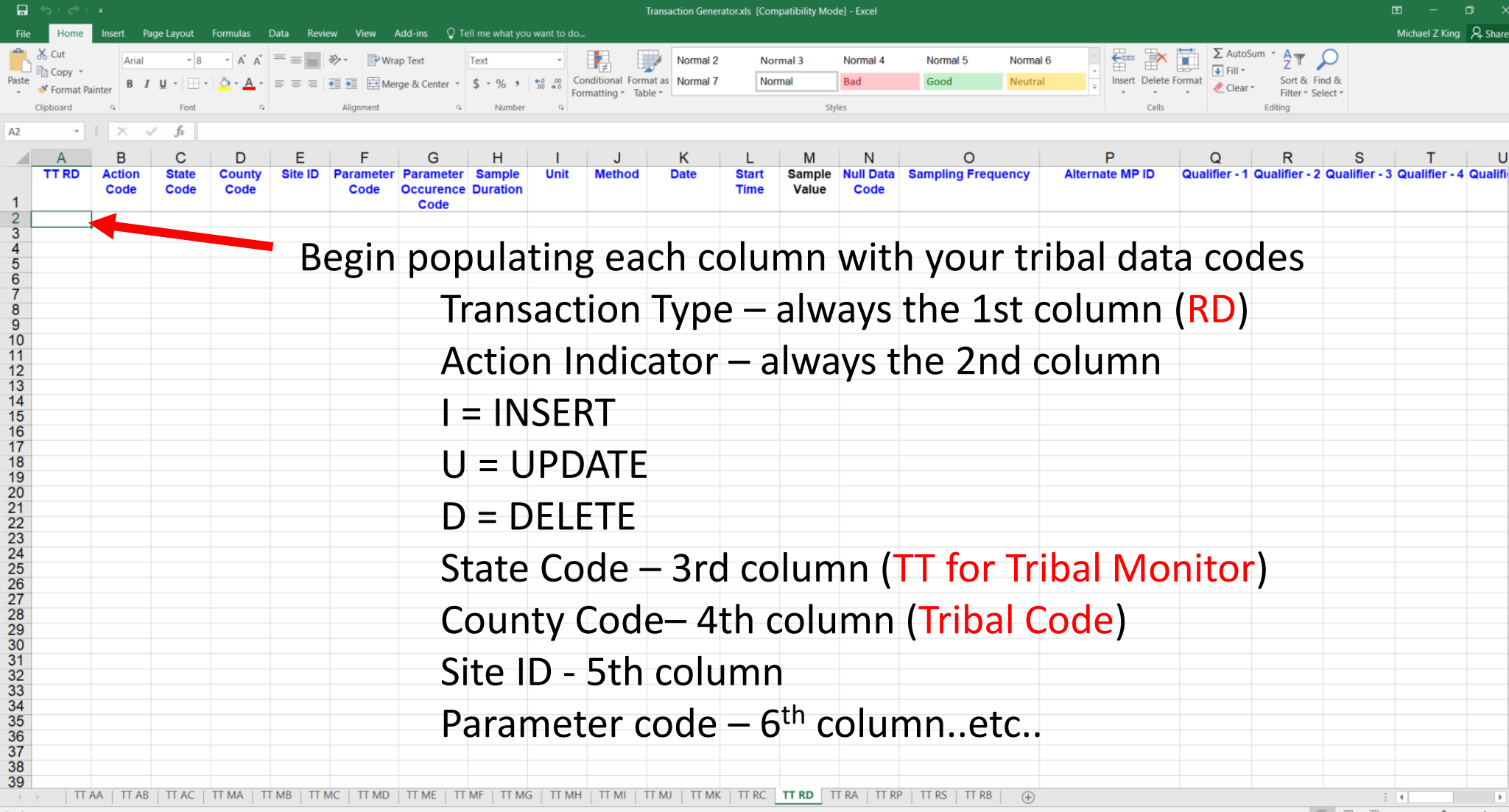
This Transaction Generator generates an AQS ready pipe-delimited text file and can be found in the **handouts**

CAUTION – Does not provide validation/verification of data. Not Supported by EPA

Open Transaction Generator and select the **TT RD** (Raw Data) tab sheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4	Qualifi

Format Data Using Excel-Based Transaction Generator



Transaction Generator.xls [Compatibility Mode] - Excel

	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4	Qualifi
1																					
2																					
3																					
4																					
5																					
6																					
7																					
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38																					
39																					

Begin populating each column with your tribal data codes

- Transaction Type – always the 1st column (**RD**)
- Action Indicator – always the 2nd column
 - I = INSERT
 - U = UPDATE
 - D = DELETE
- State Code – 3rd column (**TT** for Tribal Monitor)
- County Code – 4th column (**Tribal Code**)
- Site ID - 5th column
- Parameter code – 6th column..etc..

Format Data Using Excel-Based Transaction Generator

Codes in these Columns stay the same

Sample Value, Date, Start Time, and Null/Qualifier Code (if any) should be updated

Remember Date is expressed in Year-Month-Day (YYYYMMDD) format
*Highlight column and right click, select Format Cells

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	TTRD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4
1																				
2	RD		TT	577	1011	88501	3	1	105	170	20181010	11:00	-4							
3	RD		TT	577	1011	88501	3	1	105	170	20181010	12:00	0							
4	RD		TT	577	1011	88501	3	1	105	170	20181010	13:00	3							
5	RD		TT	577	1011	88501	3	1	105	170	20181010	14:00	9							
6	RD		TT	577	1011	88501	3	1	105	170	20181010	15:00	6							
7	RD		TT	577	1011	88501	3	1	105	170	20181010	16:00	4							
8	RD		TT								20181010	17:00	4							
9	RD		TT								20181010	18:00	6							
10	RD		TT								20181010	19:00	5							
11	RD		TT								20181010	20:00	5							
12	RD		TT								20181010	21:00	7							
13	RD		TT								20181010	22:00	6							
14	RD		TT								20181010	23:00	3							
15	RD		TT								20181011	0:00	7							
16	RD		TT								20181011	1:00	7							
17	RD		TT								20181011	2:00	6							
18	RD		TT								20181011	3:00	6							
19	RD		TT								20181011	4:00	5							
20	RD		TT								20181011	5:00	5							
21	RD		TT								20181011	6:00	8							
22	RD		TT								20181011	7:00	6							
23	RD		TT								20181011	8:00	4							
24	RD		TT								20181011	9:00	4							
25	RD		TT								20181011	10:00	3							
26	RD		TT								20181011	11:00	2							
27	RD		TT								20181011	12:00	2							
28	RD		TT								20181011	13:00	5							
29	RD		TT								20181011	14:00	4							
30	RD		TT								20181011	15:00	4							
31	RD		TT								20181011	16:00	6							
32	RD		TT								20181011	16:00	6							
33	RD		TT								20181011	18:00	8							
34	RD		TT								20181011	19:00	8							

Format Data Using Excel-Based Transaction Generator

The screenshot displays the Microsoft Excel interface with the 'Transaction Generator.xls [Read-Only] [Compatibility Mode] - Excel' window open. The ribbon is set to 'Add-ins', and the 'Generate Transactions' button is highlighted with a red circle. A green arrow points to the 'Add-ins' tab. The spreadsheet contains a table with the following columns: TT RD, Action Code, State Code, County Code, Site ID, Parameter Code, Parameter Occurrence Code, Sample Duration, Unit, Method, Date, Start Time, Sample Value, Null Data Code, Sampling Frequency, Alternate MP ID, Qualifier - 1, Qualifier - 2, Qualifier - 3, and Qualifier - 4. The data rows show various parameters and values. A file save dialog is open, showing the file name 'TT RD transactions from Apr 9 2019 09-10-29 PM.txt' and the save location 'Fundamentals of Air Monitoring'.

	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4
1																				
2	RD	I	TT	577	1011	88501	3	1	105	170	20181010	11:00	-4							
3	RD	I	TT	577	1011	88501	3	1	105	170	20181010	12:00	0							
4	RD	I	TT	577	1011	88501	3	1	105	170	20181010	13:00	3							
5	RD	I	TT	577	1011	88501	3	1	105	170	20181010	14:00	6							
6	RD	I	TT	577	1011	88501	3	1	105	170	20181010	15:00	9							
7	RD	I	TT	577	1011	88501	3	1	105	170	20181010	16:00	12							
8	RD	I	TT	577	1011	88501	3	1	105	170	20181010	17:00	15							
9	RD	I	TT	577	1011	88501	3	1	105	170	20181010	18:00	18							
10	RD	I	TT	577	1011	88501	3	1	105	170	20181010	19:00	21							
11	RD	I	TT	577	1011	88501	3	1	105	170	20181010	20:00	24							
12	RD	I	TT	577	1011	88501	3	1	105	170	20181010	21:00	27							
13	RD	I	TT	577	1011	88501	3	1	105	170	20181010	22:00	30							
14	RD	I	TT	577	1011	88501	3	1	105	170	20181010	23:00	33							
15	RD	I	TT	577	1011	88501	3	1	105	170	20181010	00:00	36							
16	RD	I	TT	577	1011	88501	3	1	105	170	20181010	01:00	39							
17	RD	I	TT	577	1011	88501	3	1	105	170	20181010	02:00	42							
18	RD	I	TT	577	1011	88501	3	1	105	170	20181010	03:00	45							
19	RD	I	TT	577	1011	88501	3	1	105	170	20181010	04:00	48							
20	RD	I	TT	577	1011	88501	3	1	105	170	20181010	05:00	51							
21	RD	I	TT	577	1011	88501	3	1	105	170	20181010	06:00	54							
22	RD	I	TT	577	1011	88501	3	1	105	170	20181010	07:00	57							
23	RD	I	TT	577	1011	88501	3	1	105	170	20181010	08:00	60							
24	RD	I	TT	577	1011	88501	3	1	105	170	20181010	09:00	63							
25	RD	I	TT	577	1011	88501	3	1	105	170	20181010	10:00	66							
26	RD	I	TT	577	1011	88501	3	1	105	170	20181010	11:00	69							
27	RD	I	TT	577	1011	88501	3	1	105	170	20181010	12:00	72							
28	RD	I	TT	577	1011	88501	3	1	105	170	20181010	13:00	75							
29	RD	I	TT	577	1011	88501	3	1	105	170	20181010	14:00	78							
30	RD	I	TT	577	1011	88501	3	1	105	170	20181010	15:00	81							
31	RD	I	TT	577	1011	88501	3	1	105	170	20181010	16:00	84							
32	RD	I	TT	577	1011	88501	3	1	105	170	20181010	17:00	87							
33	RD	I	TT	577	1011	88501	3	1	105	170	20181010	18:00	90							
34	RD	I	TT	577	1011	88501	3	1	105	170	20181010	19:00	93							

After all data has been entered. Highlight all rows with data, then select **Add-ins** in the menu tab and then **Generate Transactions**. You will be prompted to Save the Text file.

Transaction Generator.xls [Read-Only] [Compatibility Mode] - Excel

File Home Insert Page Layout Formulas Data Review View Add-ins Tell me what you want to do...

Generate Transactions

Menu Commands

RD

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sample
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8	RD	I	TT	577	1011	88501	3	1	105	170	20181010	17:00	4		
9	RD	I	TT	577	1011	88501	3	1	105						
10	RD	I	TT	577	1011	88501	3	1	105						
11	RD	I	TT	577	1011	88501	3	1	105						
12	RD	I	TT	577	1011	88501	3	1	105						
13	RD	I	TT	577	1011	88501	3	1	105						
14	RD	I	TT	577	1011	88501	3	1	105						
15	RD	I	TT	577	1011	88501	3	1	105						
16	RD	I	TT	577	1011	88501	3	1	105						
17	RD	I	TT	577	1011	88501	3	1	105						
18	RD	I	TT	577	1011	88501	3	1	105	170	20181011	3:00	6		
19	RD	I	TT	577	1011	88501	3	1	105	170	20181011	4:00	5		
20	RD	I	TT	577	1011	88501	3	1	105	170	20181011	5:00	5		
21	RD	I	TT	577	1011	88501	3	1	105	170	20181011	6:00	8		
22	RD	I	TT	577	1011	88501	3	1	105	170	20181011	7:00	6		
23	RD	I	TT	577	1011	88501	3	1	105	170	20181011	8:00	4		
24	RD	I	TT	577	1011	88501	3	1	105	170	20181011	9:00	4		
25	RD	I	TT	577	1011	88501	3	1	105	170	20181011	10:00	3		
26	RD	I	TT	577	1011	88501	3	1	105	170	20181011	11:00	2		
27	RD	I	TT	577	1011	88501	3	1	105	170	20181011	12:00	2		
28	RD	I	TT	577	1011	88501	3	1	105	170	20181011	13:00	5		
29	RD	I	TT	577	1011	88501	3	1	105	170	20181011	14:00	4		
30	RD	I	TT	577	1011	88501	3	1	105	170	20181011	15:00	4		
31	RD	I	TT	577	1011	88501	3	1	105	170	20181011	16:00	6		
32	RD	I	TT	577	1011	88501	3	1	105	170	20181011	17:00	6		
33	RD	I	TT	577	1011	88501	3	1	105	170	20181011	18:00	8		
34	RD	I	TT	577	1011	88501	3	1	105	170	20181011	19:00	8		

TT RD Transactions Generated

Transactions generated and saved as

D:\Technology Specialist III\Fundamentals of Air Monitoring\TT RD transactions from Apr 9 2019 09-10-29 PM .txt

45 transactions generated

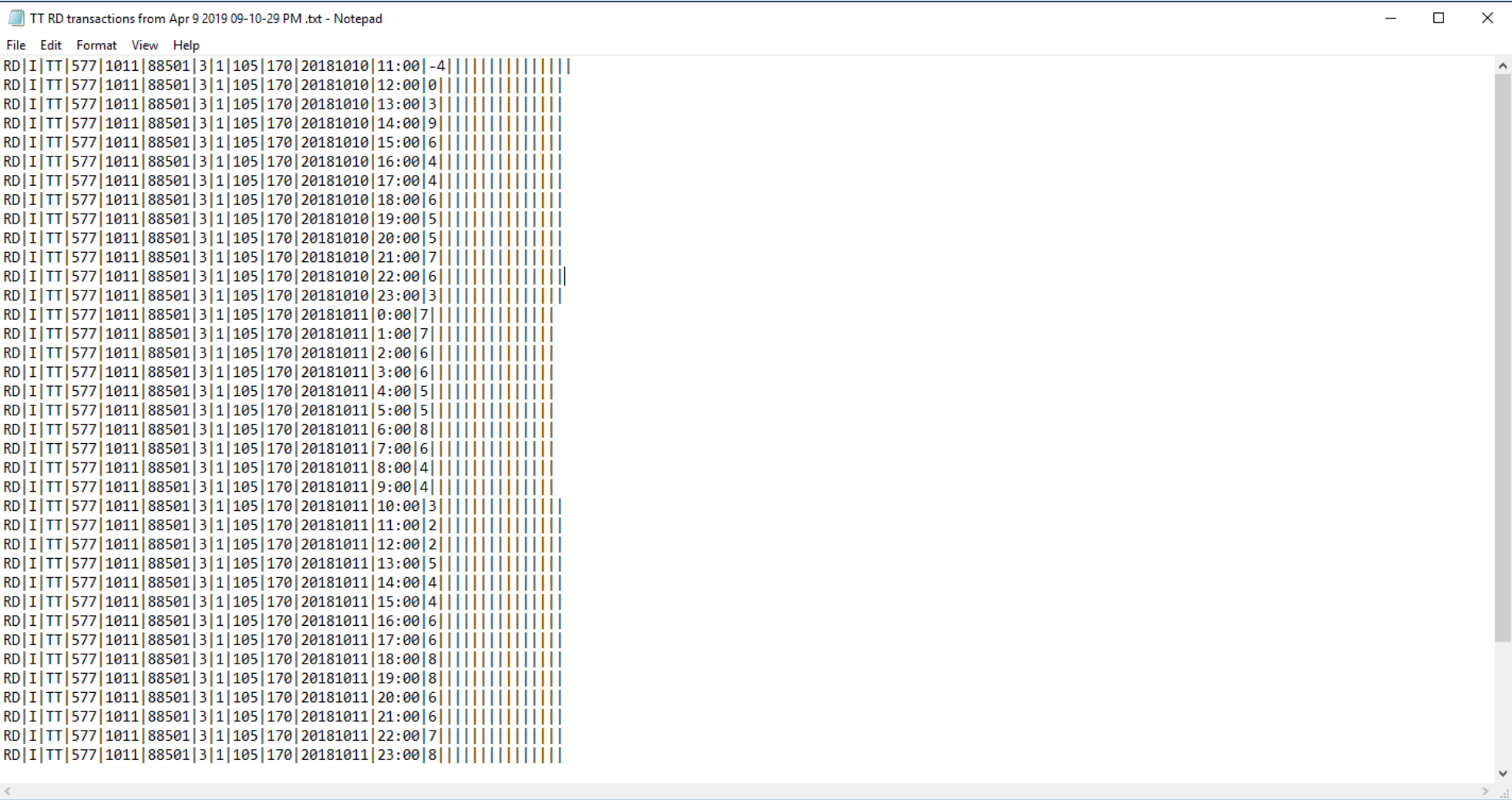
OK

TT AA TT AB TT AC TT MA TT MB TT MC TT MD TT ME TT MF TT MG TT MH TT MI TT MJ TT MK TT RC TT RD TT RA TT RP TT F

Ready

A dialog box will then pop-up informing of the number of transactions created and saved (Ex. 45 Transactions Generated)

Format Data Using Excel-Based Transaction Generator



TT RD transactions from Apr 9 2019 09-10-29 PM .txt - Notepad

```
File Edit Format View Help
RD|I|TT|577|1011|88501|3|1|105|170|20181010|11:00|-4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|12:00|0| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|13:00|3| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|14:00|9| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|15:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|16:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|17:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|18:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|19:00|5| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|20:00|5| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|21:00|7| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|22:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181010|23:00|3| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|0:00|7| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|1:00|7| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|2:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|3:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|4:00|5| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|5:00|5| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|6:00|8| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|7:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|8:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|9:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|10:00|3| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|11:00|2| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|12:00|2| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|13:00|5| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|14:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|15:00|4| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|16:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|17:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|18:00|8| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|19:00|8| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|20:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|21:00|6| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|22:00|7| |||||
RD|I|TT|577|1011|88501|3|1|105|170|20181011|23:00|8| |||||
```

Open up the Pipe-Delimited Text File...AQS Ready File

Poll Question 4



- What current software do you use to format your data for AQS upload?
 - AirVision
 - EDAS
 - Tribal DataTool Box
 - Other
 - None

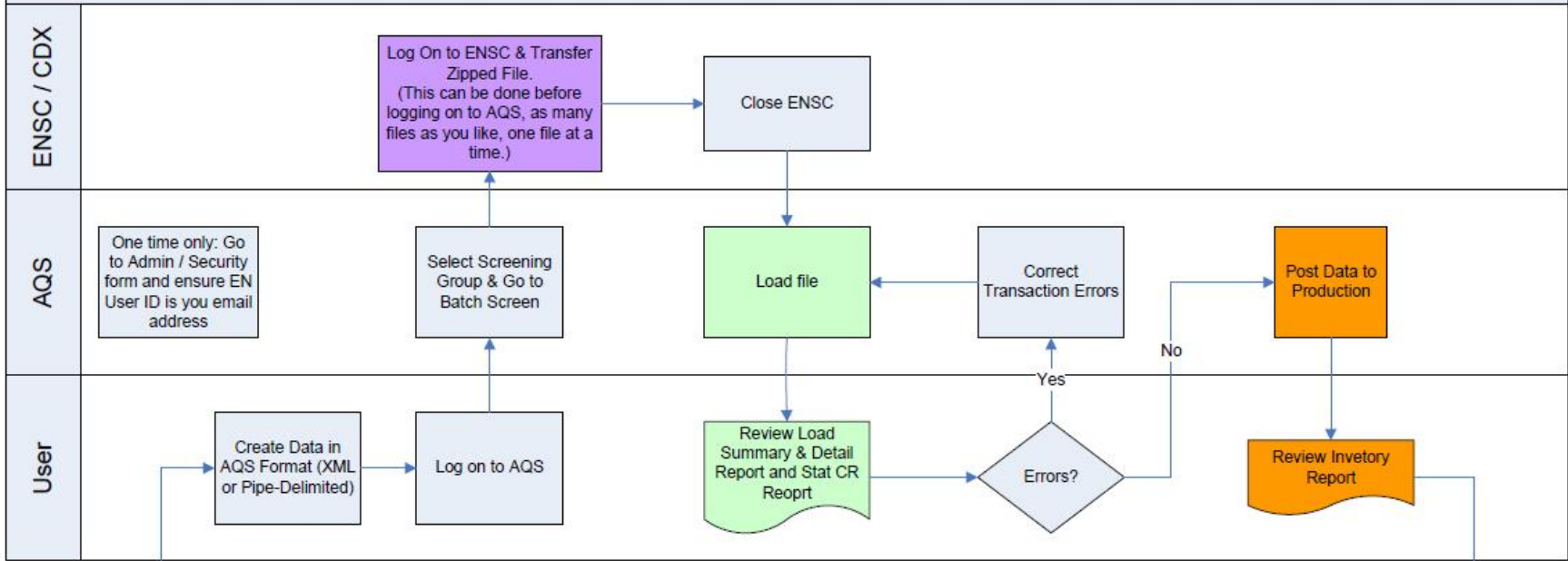
Poll Question 5



- Did you find the Transaction Generator useful?
 - Yes
 - No
 - I already have software that formats my data for AQS upload

Batch Data Submission (Loading Data to AQS)

Loading Data Into AQS Using New Batch Form



Start

Processing is by file (not by screening group)

HISTORY AND STATUS					LOAD			POST				
Submission Date	File Name	User Name	Records in File	Date (last)	Load Status	Recs Loaded	Recs Failing to Load	Stat/CR Error Count	Records to Post	Post Status	Skip'd Monitors	Records Posted
20120320 14:28	prod_test_raw_03.zip	NICK MANGUS	1177	20120320 17:51	COMPLETE	1177	0	0	0		0	0
20120319 16:14	prod_test_raw_03.zip	NICK MANGUS	1177	20120320 13:59	ERROR	1167	10	3	1167		0	0
20120319 16:13	prod_test_raw_02.zip	NICK MANGUS	1177	20120320 13:53	COMPLETE	1177	0	0	1177		0	0
20120319 16:12	prod_test_raw_01.zip	NICK MANGUS	1167	20120320 13:46	COMPLETE	1167	0	0	1167		0	0
20120319 16:11	prod_test_mons_1to3.zip	NICK MANGUS	24	20120320 13:36	COMPLETE	24	0	0	0		0	0

PROCESS CONTROL

Process selected file through:

Results and Reports:

Load

Post

Other

Show User Log

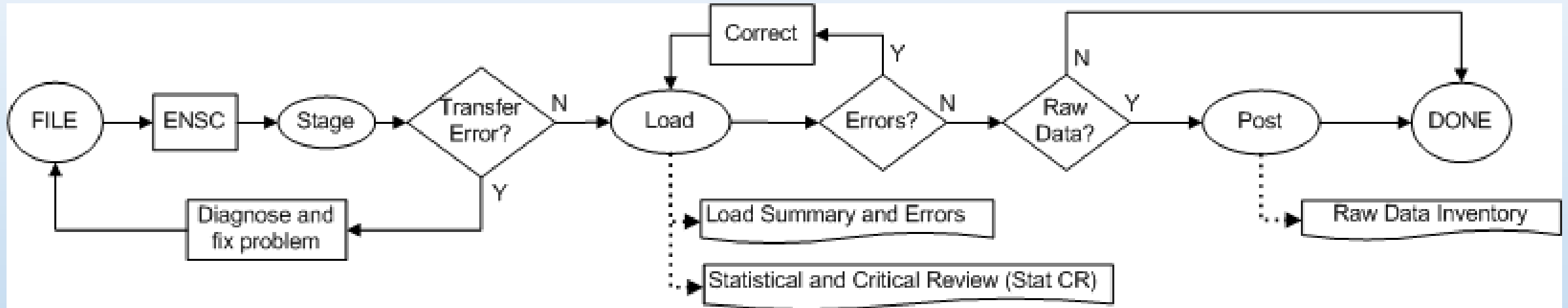
Goto ENSC

Refresh Sessions

For Raw Data, when number of Records Posted = number of Records in File, then file is done.

Click here to see most recent summary of file processing

Batch Data Submission Process



- **ENSC:** User uploads Data File to ENSC and enters AQS Access Information and Processing Options
- **Automatic:** **File is submitted by ENSC to AQS** with user information
- **AQS:**
 - User monitors status & records process
 - Correct any Errors
 - Submit /resubmit remaining processing steps

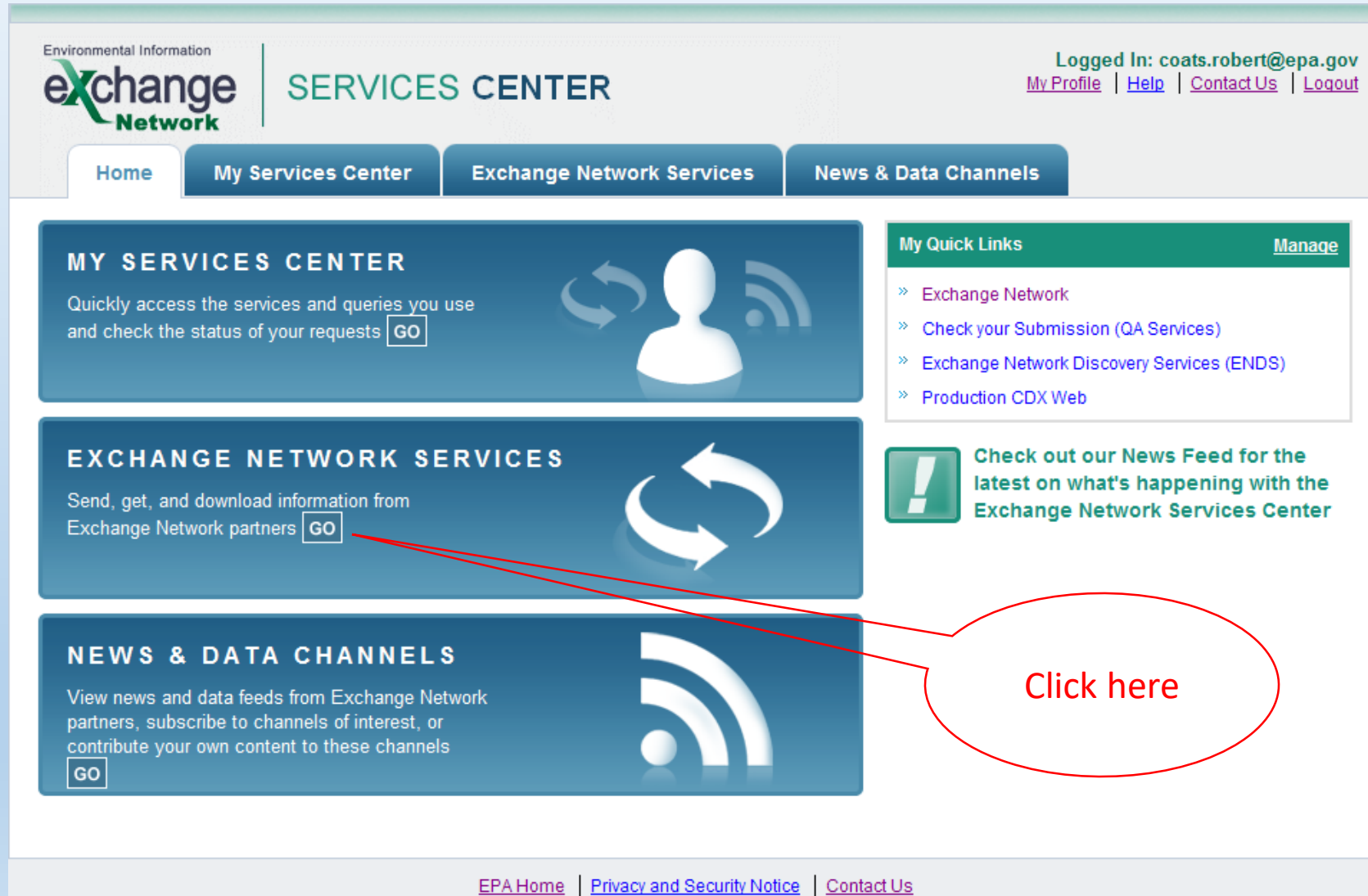
Understanding Batch Submission Video

Exchange Network Service Center (ENSC) Login

- Go to the AQS database website:
<https://www.epa.gov/aqs>
- Click on “Environmental Information Exchange Network” button
- **You will need to access ENSC to load/post data to AQS**
- Username = Your email address
- Password: Your selected password

The screenshot shows the EPA Air Quality System (AQS) website. At the top, there is a navigation bar with links for Environmental Topics, Laws & Regulations, and About EPA, along with a search bar and social media icons. The main heading is "Air Quality System (AQS)". Below this, there is a notice about the AQS User Support Process and a "Tools to Upload AQS Data" button. A red arrow points from the text "Click on 'Environmental Information Exchange Network' button" to the "exchange Network" button in the "Tools to Upload AQS Data" section. Below this, there is a description of the AQS and a list of services. A second red arrow points from the text "You will need to access ENSC to load/post data to AQS" to the "Services Center" section of the ENSC login page. The ENSC login page includes a "Login" form with fields for Username (coats.robert@epa.gov), Password, and Domain (default), and a "Login" button. There is also a "Request an Account" link and a "Forgot Username or Password" link. At the bottom, there is a "Warning Notice" about the EPA computer system.

Initial ENSC Home Page



The screenshot shows the initial ENSC Home Page. At the top left, it says "Environmental Information" above the "exchange Network" logo. To the right of the logo is the text "SERVICES CENTER". In the top right corner, it says "Logged In: coats.robert@epa.gov" with links for "My Profile", "Help", "Contact Us", and "Logout". Below the header is a navigation bar with four tabs: "Home", "My Services Center", "Exchange Network Services", and "News & Data Channels". The "My Services Center" tab is active. The main content area is divided into three large blue boxes. The first box is titled "MY SERVICES CENTER" and contains the text "Quickly access the services and queries you use and check the status of your requests" followed by a "GO" button. The second box is titled "EXCHANGE NETWORK SERVICES" and contains the text "Send, get, and download information from Exchange Network partners" followed by a "GO" button. The third box is titled "NEWS & DATA CHANNELS" and contains the text "View news and data feeds from Exchange Network partners, subscribe to channels of interest, or contribute your own content to these channels" followed by a "GO" button. To the right of these boxes is a "My Quick Links" section with a "Manage" link and four links: "Exchange Network", "Check your Submission (QA Services)", "Exchange Network Discovery Services (ENDS)", and "Production CDX Web". Below this is a "Check out our News Feed" section with an exclamation mark icon and the text "Check out our News Feed for the latest on what's happening with the Exchange Network Services Center". A red oval with the text "Click here" is positioned to the right of the "GO" button in the "EXCHANGE NETWORK SERVICES" box, with a red line pointing to it.

Environmental Information
exchange Network

SERVICES CENTER

Logged In: coats.robert@epa.gov
[My Profile](#) | [Help](#) | [Contact Us](#) | [Logout](#)

Home | My Services Center | Exchange Network Services | News & Data Channels

MY SERVICES CENTER
Quickly access the services and queries you use and check the status of your requests [GO](#)

EXCHANGE NETWORK SERVICES
Send, get, and download information from Exchange Network partners [GO](#)

NEWS & DATA CHANNELS
View news and data feeds from Exchange Network partners, subscribe to channels of interest, or contribute your own content to these channels [GO](#)

My Quick Links [Manage](#)

- » [Exchange Network](#)
- » [Check your Submission \(QA Services\)](#)
- » [Exchange Network Discovery Services \(ENDS\)](#)
- » [Production CDX Web](#)

Check out our News Feed for the latest on what's happening with the Exchange Network Services Center

[Click here](#)

[EPA Home](#) | [Privacy and Security Notice](#) | [Contact Us](#)

First-Time ENSC Login - AQS Selection

The screenshot displays the 'Environmental Information Exchange Network SERVICES CENTER' interface. The user is logged in as 'coats.robert@epa.gov'. The main navigation includes 'Home', 'My Services Center', 'Exchange Network Services', and 'News & Data Channels'. Below the navigation, a message states: 'Use either the **Step-by-Step** OR **Express** approach to send, get, or download information from the Exchange Network.'

The 'CHOOSE' section offers two options:

- Guide Me Step-by-Step** (recommended for novice users):
 - Step 1: Choose the Type of Transaction to Perform
 - Send information to a system on the Exchange Network
 - Get information that is stored on the Exchange Network
 - Download a document from the Exchange Network. You must know the [Transaction ID](#) or [Document ID](#) to perform a download.

OR

- Express Request** (recommended for advanced users):
 - Search for a Service by Keyword
 - Input: AQS
 - Search button
 - OR
 - Browse our entire Services Directory
 - Browse Services Directory button

Red annotations highlight the 'AQS' input field with the text 'Type AQS' and the 'Search' button with the text 'Then Click Here'.

First-Time ENSC Login - AQS Selection

Home My Services Center Exchange Network Services News & Data Channels [My Quick Links](#) ▼

[Add this page to My Quick Links](#)

Services Directory

This directory runs from Exchange Network Discovery Service (ENDS) metadata. It requires the commitment of our Network to keep it up to date and useful. For the BETA version, the Services Directory contains only services that support Submit, Query, Solicit, and Download operations. Select the name of the Service you wish to use.

Filter By:

1 - 4 of 4

<u>Service Transaction</u>	<u>Dataflow</u>	<u>Service Name</u>	<u>Service Description</u>	<u>Node</u>	<u>Service Provider</u>
Get Info	AQDE	AQDERawData	Queries or Solicits the Raw Data for the AQDE Flow. The return is an XML file that conforms to the AQS Version 2.0 Schema.	NewJerseyNodeV1_Prod	NJDEP
Send Info	AQS	AQS Submit	Air Quality System Document Submissions	NGNProd2.0	U.S. Environmental Protection Agency
Get Info	AQS	DNR.AQSSubmitRawData	DNR.AQSSubmitRawData	WDNRnode2	Wisconsin DNR
Get Info	FRS	DNR.AQSSubmitRawData	DNR.AQSSubmitRawData	WDNRnode2UAT	Wisconsin DNR

Click Here

ENSC Upload Form

Express Request: AQS Submit ?

Select a Document to Upload (max. size 1 GB): **Required**

Enter Sender's Email Address to Notify of Transaction Status Changes: **Optional**

AQS User ID: **Required**

Additional Data Flow Specific Information:

Screening Group : **Required**

File Type : **Required**

Final Processing Step : **Optional**

Stop On Error : **Optional**

► [Provide information \(metadata\) about this Document \(recommended\)](#)

One file only;

File to Upload

Email address

AQS User ID

Screening Group

Flat or XML

File

Stage, Load, or Post

Type

Yes or No

Stop on Error:

Defaults:
Final Processing Step = "Post"
Stop on Error = "Yes"

Flat (Pipe-Delimited Text File)

Submit Acknowledgement

Request Received!

Your File AQS_Sample_Blanks_v2.2.zip has been received.

The following Transaction ID has been assigned to this request:

_78f81539-6c17-47e7-81c8-ec209d80b9fc

Record for
future
reference

Current Status of Request:

Transaction Status	Service Name	Transaction Type	Date
Processing	AQS Submit	Send Information	3/21/2012 2:59 PM

What would you like to do next?

[View the Status of this request in My Activity](#)

[Complete another Transaction using this same Service](#)

[Complete another Transaction using a different Service](#)

[Add this Service to My Quick Links](#)

[Log out of the Services Center](#)

ENSC Status Page

[My Services](#) [My EPA Activity](#) [My Channels](#) [Add this page to My Quick Links](#)

Make this my Start page

My EPA Activity ? View the status of your transactions

Filter By: Status ▼ All ▼ [Filter](#) [Clear](#)

1 - 5 of 5 < Previous **1** Next > [Refresh Activity](#)

<u>Service Name</u>	<u>Dataflow Name</u>	<u>Transaction Status</u>	<u>Transaction Type</u>	<u>Date</u>	<u>Transaction ID</u>	<u>Documents</u>
AQS Submit	AQS	COMPLETED: Number of data rows successfully staged: 24. Number of rows that failed to stage: None. Number of transactions successfully loaded: 0. Number of transactions with Load error: 24.	Send Info	8/8/2014 10:35:02 AM	_daccf978-d879-4533-b950-f51ccf3fc80b	Ex2_3_T79.txt.zip
AQS Submit	AQS	COMPLETED: Number of data rows successfully staged: 33. Number of rows that failed to stage: None. Number of transactions successfully loaded: 9. Number of transactions with Load error: 24.	Send Info	8/8/2014 10:27:06 AM	_c688c6bb-e2f1-4f91-8395-6c1a8824f92e	Ex2_2_T79.txt.zip
AQS Submit	AQS	COMPLETED: Number of data rows successfully staged: 33. Number of rows that failed to stage: None. Number of transactions successfully loaded: 0. Number of transactions with Load error: 33.	Send Info	8/8/2014 10:18:10 AM	_86aeaf51-bbf7-46a4-90ae-428ce3b79dfe	AQS_Load_Reports.zip
AQS Submit	AQS	COMPLETED: Number of data rows successfully staged: 24. Number of rows that failed to stage: None. Number of transactions successfully loaded: 0. Number of transactions with Load error: 24.	Send Info	8/8/2014 10:01:54 AM	_76842965-4315-4d1e-a275-a04eb28b0c12	AQS_Load_Reports.zip
AQS Submit	AQS	COMPLETED: Number of data rows successfully staged: 33. Number of rows that failed to stage: None. Number of transactions successfully loaded: 0. Number of transactions with Load error: 33.	Send Info	8/8/2014 9:57:44 AM	_67dbbbed-4780-40-8000-000000000000	AQS_Load_Reports.zip

ENSC Download Page

Transaction Details

Transaction ID: _78f81539-6c17-47e7-81c8-ec209d80b9fc

Transaction Status: COMPLETED

Date: 3/21/2012 2:59:26 PM

Service Name: AQS Submit

Message: Number of transactions processed successfully: 882. Number of transactions rejected with error: None.

DataFlow: AQS

Transaction Type: Submit

Approved Count: 0

Recipients:

[Return to My Activity](#)

Documents Associated with this Transaction:

[AQS_Load_Reports.zip](#) [View Details](#)

[ValidationResults.xml](#) [View Details](#)

[AQS_Sample_Blanks_v2.2.zip](#) [View Details](#)

Second-time ENSC Login – AQS is Selected

Environmental Information
exchange
Network

SERVICES CENTER

Logged In: coats.robert@epa.gov
[My Profile](#) | [Help](#) | [Contact Us](#) | [Logout](#)

[Home](#) | [My Services Center](#) | [Exchange Network Services](#) | [News & Data Channels](#) | [My Quick Links](#) ▼

[My Services](#) | [My EPA Activity](#) | [My Channels](#) (Added to My Quick Links)

Make this my Start page

My Services ? Access services you have used before. [Use a New Service](#)

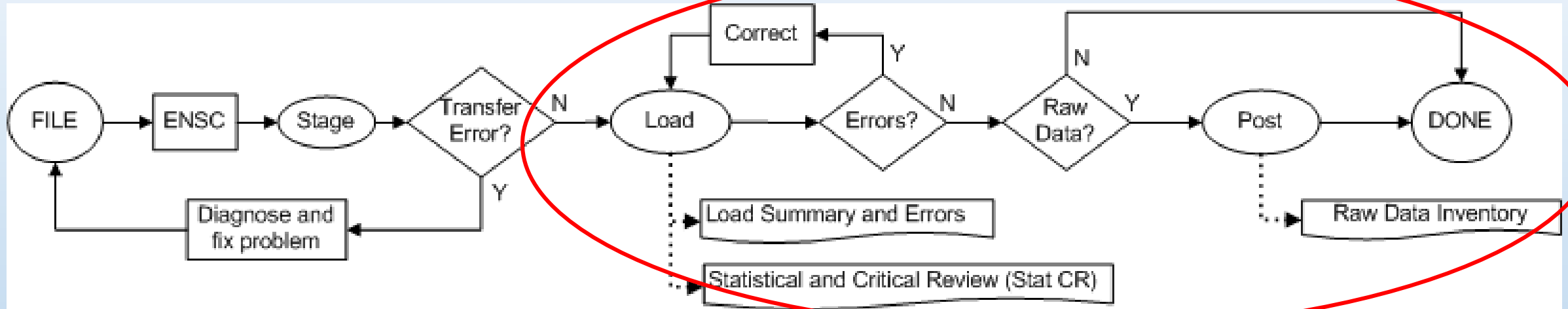
[All](#) | [Send Info](#) | [Get Info](#) | [Download](#) | [My Queries](#)

Find a Service: My Services Services Directory [Find](#)

<u>Service Name</u>	<u>Service Description</u>	<u>Publisher</u>	<u>RSS-enabled</u>	<u>Last Used</u>
NGNTest2.0/AQS/AQS Submit	AQS Submit: Send files to the Air Quality System (AQS).	U.S. Environmental Protection Agency	No	3/21/2012 2:59:25 PM

Submitting Data to AQS through ENSC Video

AQS Submit Process



- After a File has been submitted by ENSC to AQS you can then go into AQS to:
 - Correct any Errors
 - Submit /resubmit remaining processing steps (LOAD and POST)

AQS Batch Form Overview

AQS Batch Form (Process by File Tab)

BATCH (Robert Coats Test)

Process by File | History

HISTORY AND STATUS

Submission Date	File Name	User Name	Records In File	Date (last)	Process Status	LOAD			POST		
						Recs Loaded	Recs Failing to Load	Stat/CR Finding Count	Records to Post	Skip'd Monitors	Records Posted
20120502 10:44	Del_Raw_XML.zip	ROBERT COATS	939	20120502 10:45	CRST-COMPLETED	939	0	191	939	0	
20120502 10:42	Ins_PA.zip	ROBERT COATS	64	20120502 10:42	STAGE-COMplete						
20120502 10:30	Ins_Raw.zip	ROBERT COATS	951	20120502 10:33	POST-COMPLETED	939	12	12	939	0	939
20120502 10:07	ONLINE_RCG_779491	ROBERT COATS	6	20120502 10:07	STAGE-COMplete						
20120222 12:42	do_nothing.zip	ROBERT COATS	0	20120222 12:42	STAGE-ERROR						

PROCESS CONTROL

Process selected file through:

Results and Reports:

PROCESS FLOW

```

    graph LR
      FILE((FILE)) --> ENSC[ENSC]
      ENSC --> Stage((Stage))
      Stage --> Transfer{Transfer Error?}
      Transfer -- N --> Load((Load))
      Transfer -- Y --> Diagnose[Diagnose and fix problem]
      Diagnose --> FILE
      Load --> Errors{Errors?}
      Errors -- Y --> Correct[Correct]
      Correct --> Load
      Errors -- N --> RawData{Raw Data?}
      RawData -- Y --> Post((Post))
      RawData -- N --> Load
      Post --> DONE((DONE))
      Load -.-> LoadSummary[Load Summary and Errors]
      RawData -.-> RawDataInventory[Raw Data Inventory]
      RawData -.-> StatCR[Stat CR]
  
```

Batch Form Fields

- Submission Date: Date-time file received by AQS
- File Name: Name of file uploaded by user
- User Name: User who ***last*** processed file in AQS
- Records In File: Count of transactions received by AQS
- Process Status: Last process executed and its status
- Date that last process executed
- Records Loaded: Successfully loaded transactions
- Recs Failing to Load: Number of transactions with errors.
- Stat/CR Finding Count: Number of Statistical results + number of Critical Review results
- Records to Post: Count of Raw Data records ready to post
- Skipped Monitors: Number of monitors being modified by another user
- Records Posted: Count of Raw Data transactions posted to production

Batch Form Notes

- Each row on form shows processing status of single file (trace processing left-to-right)
- Blank columns mean either process has not been run yet or not appropriate to data (e.g. Post not valid for some transactions)
- Load button will run both old Load and Stat/CR
- Post button will run Load, Stat/Cr, and Post
- All reports created when processing job executes → their results will be available for 15 days
- Count columns are cumulative: i.e. if 10 records are processed successfully the first time load is run for file and 10 the second time, then Recs Loaded will be 20
- Records created in “Correct” forms will show up with filename of “ONLINE_”+user+number
- **Warning: While reports are running, no indication on form. Do not click Load or Post button until prior submission complete (Look at email or user log to check!)**

AQS Batch Form (History Tab)

Form shows each individual execution and its results

The screenshot shows a web application window titled "BATCH (Tribal Sch...)" with a "History" tab selected. The main content area is titled "PROCESS HISTORY" and contains a table with the following data:

Session Date	Job Type	User Name	File Name	File Status	Successful Transactions	Failed Transactions
20140805 15:27:11	LOAD	CHRIS CHAPMAN	RAW_DATA_LOAD.txt	ERROR	0	5
20140805 15:04:53	LOAD	CHRIS CHAPMAN	QA_DATA_LOAD.txt	ERROR	1	127
20140805 15:03:59	LOAD	CHRIS CHAPMAN	QA_DATA_LOAD.txt	ERROR	0	128
20140805 14:44:08	LOAD	CHRIS CHAPMAN	RAW_DATA_LOAD.txt	ERROR	0	5
20140805 14:44:07	STAGE	CHRIS CHAPMAN	RAW_DATA_LOAD.txt	COMPLETED	5	0
20140805 14:43:41	LOAD	CHRIS CHAPMAN	QA_DATA_LOAD.txt	ERROR	0	128
20140805 14:43:39	STAGE	CHRIS CHAPMAN	QA_DATA_LOAD.txt	COMPLETED	128	0

Below the table, there are two sections of buttons:

Historical reports: [Load Summary and Errors](#) [Stat CR Report](#) [Raw Data Inventory](#)

Re Run Reports: [Rerun Load Summary and Errors](#) [Rerun Stat CR Report](#) [Rerun Raw Data Inventory](#)

[Rerun Scan Report](#) [Refresh History](#)

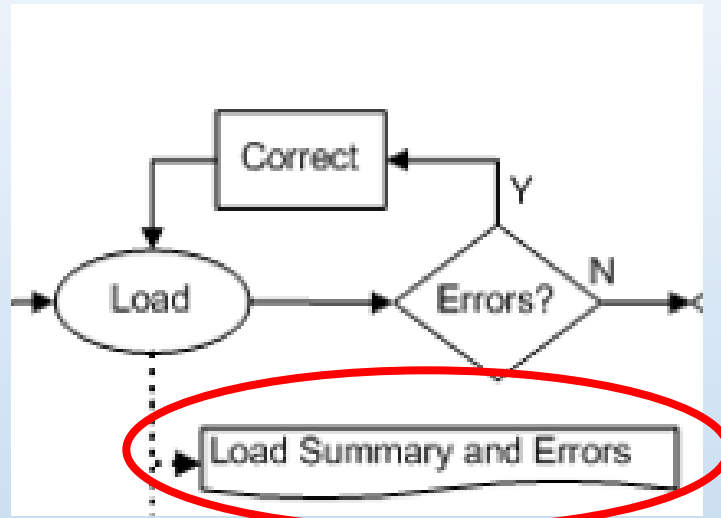
AQS Batch Form Overview Video

Correcting Data in AQS (Correct Function)

Correct Process

- AQS CORRECT is a Type of On-Line Editor That Works Against the “Staging Tables”
- Staging Tables are in the format of the Pipe-Delimited Transactions and are NOT the “Real” Table
- An Error Prevents Data From Getting to the “Real” Table
- There are two “Flavors” of correct forms
 - Older ones that correct raw data and non-QA transactions
 - Newer QA Transaction correct forms

Batch Load: Error Process



AQS Batch Data Input Flow Sheet

AQS
 Action Help Session Admin Audit Retrieval Maintain Certification Batch **Correct** Main Menu
 Site Data
 Monitor Data
Raw
 QA Transactions
 Blanks
 Composite
 Delete by Screening Group
 Main Menu

Load Summary

File Name : RAW_DATA_LOAD.txt
 Screening Group : Tribal School Air Toxics

Transaction Type	Errors	Excluded by User	Pre-Production	Posted	Total
RD-Raw Data	5	0	0	0	5
Totals	5	0	0	0	5

Load Detail

File Name : RAW_DATA_LOAD.txt
 Screening Group : Tribal School Air Toxics

Site/Monitor ID: 01-003-0010-44201-1 Transaction: Raw Data
 Transaction: RD |I |01 |003 |0010 |44201 |1 |1 |007 |047 |20110501 |00:00 |BF | | | | | | | | | | | | | |

Column	Error Description	Error Code
Multiple Columns	Screening group of user does not equal screening group of Monitor.	-20460

Batch load: Using Correct Forms (Old Way)

The screenshot shows the AQS software interface. The main window displays a table with columns: State Code, County Code, Site Id, Parameter Code, Action POC, Ind, Session Date, and others. A yellow callout box points to the 'Execute Query' button in the toolbar. Below the table, there is a 'Delete All Selected' button and an error message table.

1) Execute Query

- This will load all of this type of data in the Staging tables for your Screening Group.
- If you want to limit selection you must put in selection values **before** the execute query.

State Code	County Code	Site Id	Parameter Code	Action POC	Ind	Session Date	...
01	003	0010	44201	1	I	20140...	...
01	003	0010	44201	1	I	20140...	...
01	003	0010	44201	1	I	20140...	...
01	003	0010	44201	1	I	20140805	...

Column Name	Error Code	Error Message
RELATIONAL	-20562	Attempted to insert a value for an existing date and time.

Batch load: Using Correct Forms (Old Way)

The screenshot shows the AQS software interface. The main window is titled "Correct - Raw Data (Tribal School Air Toxics)". It contains a data table with columns: State Code, County Code, Site Id, Parameter Code, Action POC, Ind, Session Date, Duration Code, Reported Method Unit, Code, Coll Date, Coll Time, Rpt Samp Value, Null Data Code, and Ci. The first row is highlighted in blue and contains the following data: 01, 003, 0010, 44201, 1, I, 20140805, 1, 007, 047, 20110501, 00:00, BF, and Ci. Below the table is a "Delete All Selected" button. At the bottom of the window is an error message table with columns: Column Name, Error Code, and Error Message. The first row of this table is highlighted in blue and contains: RELATIONAL, -20562, and Attempted to insert a value for an existing date and time. A yellow oval highlights the error message table, and a yellow callout bubble points to it from the left.

State Code	County Code	Site Id	Parameter Code	Action POC	Ind	Session Date	Duration Code	Reported Method Unit	Code	Coll Date	Coll Time	Rpt Samp Value	Null Data Code	Ci
01	003	0010	44201	1	I	20140805	1	007	047	20110501	00:00		BF	
				1	I	20140805	1	007	047	20110501	01:00	0.032		
				1	I	20140805	1	007	047	20110501	04:00	0.026		
				1	I	20140805	1	007	047	20110501	03:00	0.034		
				1	I	20140805	1	007	047	20110501	02:00	0.030		

Column Name	Error Code	Error Message
RELATIONAL	-20562	Attempted to insert a value for an existing date and time.

- 2) Read the error message(s)
- Error messages are the same as in the error details report
- Many chose to go straight to the Correct screens rather than run a report.
- The column name is sometimes informative.

Batch load: Using Correct Forms (Old Way)

5) Save

Correct - Raw Data (Tribal School Air Toxics)

State Code	County Code	Site Id	Parameter Code	Action POC	Action Ind	Session Date	Duration Code	ReportedMethod Unit	Code	Coll Date	Coll Time	Rpt Serp Valu	Null Data Code	Ci
01	003	0010	44201	1	I	20140805	1	007	047	20110501	00:00		BF	
01	003	0010	44201	1	I	20140805	1	007	047	20110501	01:00	0.03		
01	003	0010	44201	1	I	20140805	1	007	047	20110501	04:00	0.07		
01	003	0010	44201	1	I	20140805	1	007	047	20110501	03:00			
01	003	0010	44201	1	I	20140805	1	007	047	20110501	02:00			

Delete All Selected

Column Name	Error Code	Error Message
RELATIONAL	-20562	Attempted to insert a value for an existing date and time.

3) Find, Analyze and fix the data

- Fixing the data often requires knowledge of the nature of the data and may require going back to data sources.

4) Exclude unfixed data

- Excluding unfixed data will keep it from raising error flags during load.

Batch load: Using Correct Forms to Delete Data

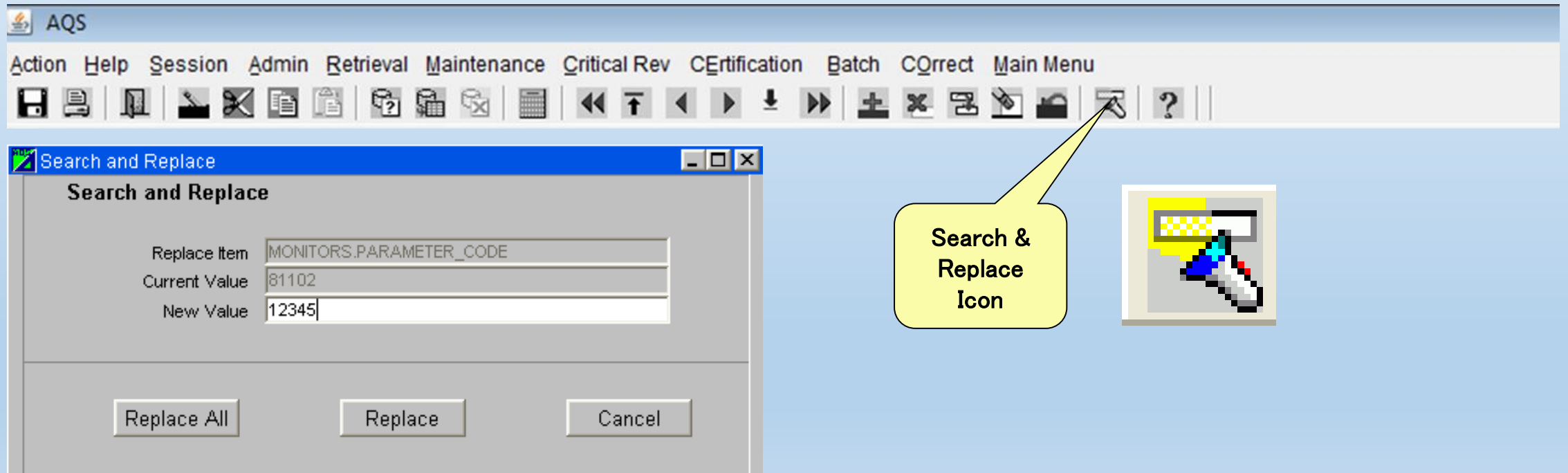
The screenshot shows the AQS software interface. The main window is titled "Correct - Raw Data (Tribal School Air Toxics)". It contains a data table with columns: State Code, County Code, Site Id, Parameter Code, Coll Date, Coll Time, Rpt Samp Value, Null Data Code, and Ci. The first row is highlighted in blue. A yellow callout bubble points to this row with the text: "•The highlighted record can be deleted from the form." and "•The record will be deleted from the Staging Table database only after a SAVE." Below the table, there is a "Forms" dialog box with a warning icon and the text: "This will delete all of the selected records. Do you want to continue?" with "Yes" and "No" buttons. A yellow callout bubble points to the "Delete All Selected" button with the text: "•All selected records will be deleted." and "•The records will be deleted from the Staging Table database when the button is clicked." At the bottom, there is an error message table with columns: Column Name, Error Code, and Error Message. The first row is highlighted in blue and contains: "RELATIONAL", "-20562", and "Attempted to insert a value for an existing date and time."

State Code	County Code	Site Id	Parameter Code	Coll Date	Coll Time	Rpt Samp Value	Null Data Code	Ci
01	003	0010	44201	20110501	00:00		BF	
01	003	0010	44201	20110501	01:00	0.032		
01	003	0010	44201	20110501	04:00	0.026		
01	003	0010	44201	20110501	03:00	0.034		
01	003	0010	44201	20110501	02:00	0.030		

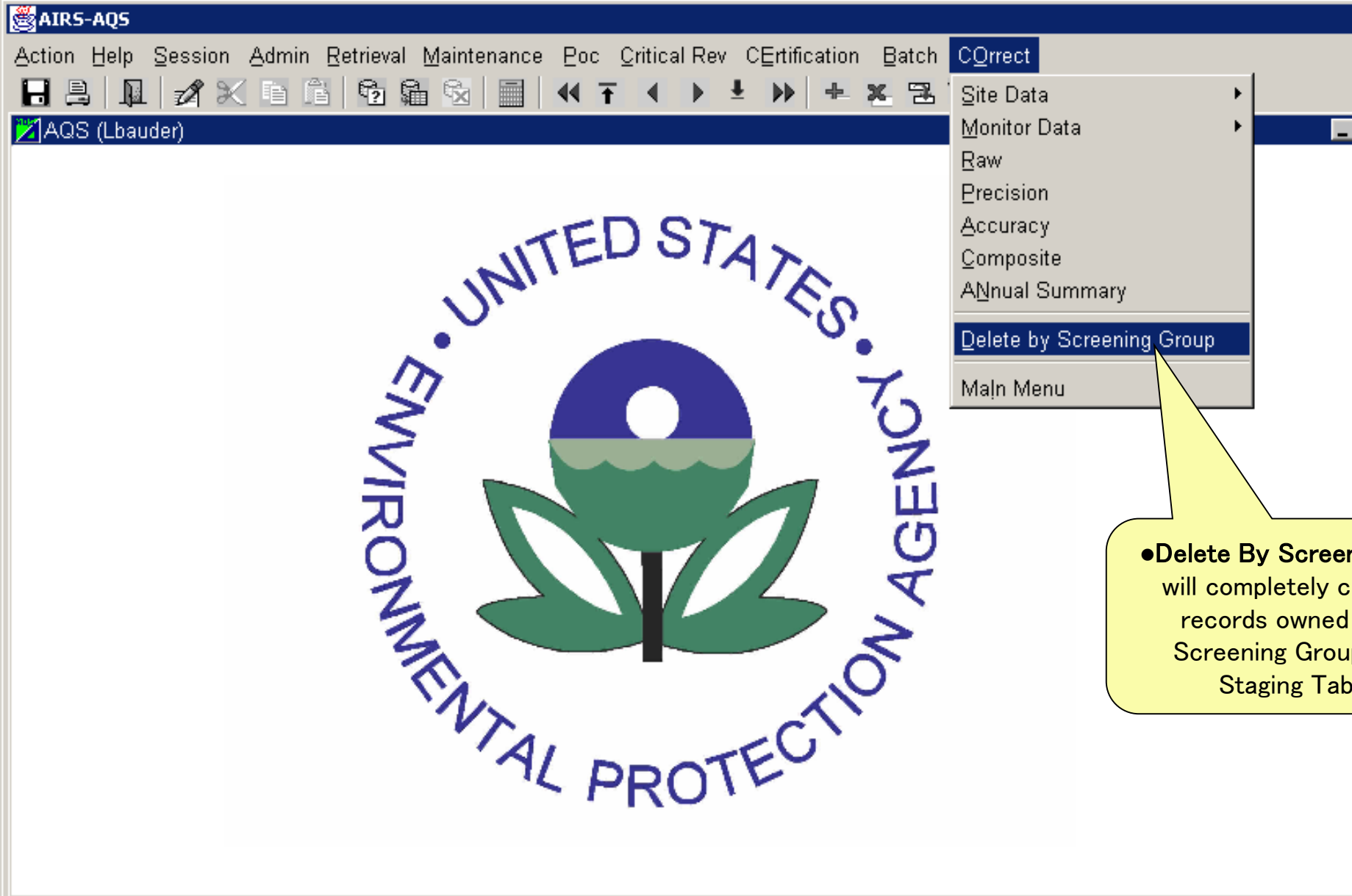
Column Name	Error Code	Error Message
RELATIONAL	-20562	Attempted to insert a value for an existing date and time.

Search & Replace

- Not “Search & Replace” as you may know it!
- Replaces ALL Queried Values in a given column
Regardless of the “Current Value”



Delete by Screening Group

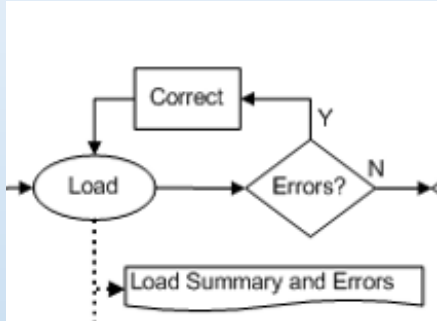


The screenshot displays the AIRS-AQS software interface. The title bar reads "AIRS-AQS". The menu bar includes "Action", "Help", "Session", "Admin", "Retrieval", "Maintenance", "Poc", "Critical Rev", "CERTification", and "Batch". The "Correct" menu is open, showing options: "Site Data", "Monitor Data", "Raw", "Precision", "Accuracy", "Composite", "Annual Summary", "Delete by Screening Group", and "Main Menu". The "Delete by Screening Group" option is highlighted. The main window area shows the EPA logo and the text "AQS (Lbauder)".

•Delete By Screening Group will completely clear ALL records owned by the Screening Group in the Staging Tables.

Batch Load: Correct Process (New Way)

AQS Batch Data Input Flow Sheet



Load Summary

File Name : QA_DATA_LOAD.txt
Screening Group : Tribal School Air Toxics

Transaction Type	Errors	Excluded by User	Pre-Production	Posted	Total
QA-Quality Assurance	128	0	0	0	128
Totals	128	0	0	0	128

Aug. 5, 2014

Load Detail

File Name : QA_DATA_LOAD.txt
Screening Group : Tribal School Air Toxics

Site/Monitor ID: 01-003-0010-44201-1 Transaction: Quality Assurance

Transaction: QA || 1-Point QC |0013 |01 |003 |0010 |44201 |1 |20110501 |1 |047 |007 |0.09 |0.09 |

Column	Error Description	Error Code
	Duplicate monitor assessment.	-20395

The screenshot shows the AQS software interface with the 'Correct' menu open. The menu items include: Site Data, Monitor Data, Raw, QA Transactions (highlighted), Blanks, Composite, Delete by Screening Group, and Main Menu. The 'QA Transactions' sub-menu is also visible, listing various QA activities like One Point QC, Annual Performance Evaluation, etc. The EPA logo is also present in the background.

Batch load: Using Correct Forms

1) Find the file with data to be corrected

2) Load QA Data
• This will load all of this transactions of this type in this batch file

3) Read the error message(s)
• Error messages are the same as in the error details report
• Many chose to go straight to the Correct screens rather than run a report.

4) Find, Analyze and fix the data
• Fixing the data often requires knowledge of the nature of the data and may require going back to data sources.

5) Save

Correct Form (Tribal School Air Toxics)

Select file to view errors:

Submission Date	File Name	User Name	Trans_Count
20140805 14:43	QA_DATA_LOAD.txt	CHRIS CHAPMAN	126

1-Point QC

Action	State Code	County	Tribal	Site Number	Parameter Code	Poc	Assessment	Assessment	Performing	Monitor Method	Reported Unit	Monitor Conc	Asmnt Conc
				44201		1	20120516	1	0013	047	0.09	0.09	
				44201		1	20120517	1	0013	047	0.07	0.09	0.09
				44201		1	20110518	1	0013	047	0.089	0.09	
				44201		1	20110519	1	0013	047			
				44201		1	20110520	1	0013	047			
				44201		1	20110521	1	0013	047			
				44201		1	20110522	1	0013	047			
				44201		1	20110523	1	0013	047			
				44201		1	20110524	1	0013	047			
				44201		1	20110525	1	0013	047			
				44201		1	20110526	1	0013	047			
				44201		1	20110527	1	0013	047			
				44201		1	20110528	1	0013	047			
				44201		1	20110529	1	0013	047			
				44201		1	20110530	1	0013	047			

ROW ERRORS

Column Name	Error Code	Error Message
-20395	-20395	Duplicate monitor assessment.
-20395	-20395	Duplicate monitor assessment.
-20395	-20395	Duplicate monitor assessment.

AQS
Action Help Session Admin

Correct Features

- New transactions may be entered using Correct forms
- After making changes/additions on Correct screen, **SAVE** changes
- “Delete All Selected” button will delete according to “Execute Query” selection criteria for the form; it will ignore subsequent changes.
- Can use “Delete by screening group” to completely eliminate all records in staging tables for your screening group

Be sure this is what you want to do. It works quickly and it deletes **EVERYTHING** for the screening group, including data entered by other users in your screening group.

Re Load (or Re-Post) the Data

Once Data is Corrected

- Load data, **Recheck** for errors, **Correct** residual errors, **Repeat** until no errors occur

HISTORY AND STATUS						LOAD			POST		
Submission Date	File Name	User Name	Records In File	Date (last)	Process Status	Recs Loaded	Recs Failing to Load	Stat/CR Finding Count	Records to Post	Skip'd Monitors	Records Posted
20140805 14:44	RAW_DATA_LOAD.txt	CHRIS CHAPMAN	5	20140805 15:27	LOAD-ERROR	0	5				
20140805 14:43	QA_DATA_LOAD.txt	CHRIS CHAPMAN	128	20140805 15:04	LOAD-ERROR	1	127				

PROCESS CONTROL

Process selected file through: **Load File** (circled in red) **Post File** (circled in red)

Results and Reports: **Load Summary and Errors** **Stat CR Report** **Raw Data Inventory** **Show User Log** **Goto ENSC** **Refresh Sessions**

PROCESS FLOW

```
graph LR; FILE((FILE)) --> ENSC[ENSC]; ENSC --> Stage((Stage)); Stage --> TE{Transfer Error?}; TE -- N --> Load((Load)); TE -- Y --> DFF[Diagnose and fix problem]; DFF --> FILE; Load --> E{Errors?}; E -- Y --> Correct[Correct]; Correct --> Load; E -- N --> RD{Raw Data?}; RD -- Y --> Post((Post)); RD -- N --> Done((DONE)); Post --> Done; E -.-> LSE[Load Summary and Errors]; Post -.-> RDI[Raw Data Inventory]; Done -.-> SCR[Statistical and Critical Review (Stat CR)];
```

Correcting Data Externally

Run an AMP501 Extract Raw Data Report

- Login to AQS
- Go to “Retrieval” on menu
- Select “Standard Report Selection” from dropdown list
- Select “AMP501 Extract Raw Data” Report (Pipe-Delimited text file)

Standard Report Criteria Selection (Tribal Air Monitoring Support - Nau) Tribal Mode

Criteria Set | Data Selection | Sort Order | Report Options | Retrieve Report

Criteria Set: [Dropdown] Desc: [Dropdown]

Owner: [MICHAEL] [KING] Type: [PRIVATE]

Retrieval | Maintain | Certification | Report Code: [Dropdown] Report Name: [Text]

Browse Annual Summary
Browse Approved Regional Methods
Browse Monitoring Season
Browse Sample Methodology
Browse Parameter
Standard Report Selection

Reports

Find: AMP%

Rep_Report_Code	Report_Name
AMP501	EXTRACT RAW DATA
AMP503	EXTRACT SAMPLE BLANK DATA
AMP500	EXTRACT SITE/MONITOR DATA

Monitor / Geographic Criteria

Tribal Code	State Code	County Code	Site Id	Parameter Code	POC	City Code	AQCR Code	UAR Code	CBSA Code	CSA Code	EPA Region Code
439			2001	88101							

Protocol Criteria

Pollutant Type: [ALL] Parameter Code: [88101] Method Code: [Dropdown] Duration Code: [Dropdown]

Date Criteria

Start Date: YYYY MM DD (2020 03 01) End Date: YYYY MM DD (2020 03 31)

Agency Role: [PQAO] Agency: [Dropdown]

Monitor Network: [Dropdown] Monitor Type: [Dropdown]

Generate Report

```
AMP501_1908843-0.txt - Notepad
File Edit Format View Help
# RD|Action Code|State Code|County Code|Site ID|Parameter|POC|Sample Dur
# RC|Action Code|State Code|County Code|Site ID|Parameter|POC|Unit|Metho
RD|I|TT|439|2001|88101|2|7|105|145|20200304|00:00|3.3|
RD|I|TT|439|2001|88101|2|7|105|145|20200310|00:00|4.0|
RD|I|TT|439|2001|88101|2|7|105|145|20200316|00:00|5.1|
RD|I|TT|439|2001|88101|2|7|105|145|20200322|00:00|7.4|
RD|I|TT|439|2001|88101|2|7|105|145|20200328|00:00|2.9|
# 5 records were written
```

Replace with NULL CODE (BA)

1.) Open **Transaction Generator** and select the **TT RD (Raw Data)** tab sheet

2.) Select **Data** and **From Text**.

3.) Navigate to your text file location and select **Import** to get Text File into Transaction Generator

Alternatively, you can use Notepad “Find & Replace” to update “U” the Action Indicator and CORRECT minor errors, then load text file back to AQS

Works okay with small data sets but large data sets can get tricky so we won’t talk too much about this

4.) Select delimiter and type pipe symbol (|) in the box for **Other**

Transaction Generators.xls [Read-Only] [Compatibility Mode] - Excel

File Home Insert Page Layout Formulas Data Review View Add-ins Tell me what you want to do...

From Access From Web From Text From Other Sources Existing Connections New Query Recent Sources Get & Transform Show Queries From Table Properties Refresh All Edit Links Connections Sort Filter Clear Reapply Advanced Text to Columns Flash Remove Duplicates Data Consolidate Relationships Manage Data Model What-If Analysis Forecast Group Ungroup Subtotal Show Detail Hide Detail

A2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4	Qualifier - 5
2																					

Text Import Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

- Tab
- Semicolon
- Comma
- Space
- Other: |

Treat consecutive delimiters as one

Text qualifier: -

Data preview

RD		TT		577		1011		08501		B		1		1.05		1.70		00101010		11:00		-4
RD		TT		577		1011		08501		B		1		1.05		1.70		00101010		12:00		0
RD		TT		577		1011		08501		B		1		1.05		1.70		00101010		13:00		0
RD		TT		577		1011		08501		B		1		1.05		1.70		00101010		14:00		0
RD		TT		577		1011		08501		B		1		1.05		1.70		00101010		15:00		0

Cancel < Back Next > Finish

TT AA TT AB TT AC TT MA TT MB TT MC TT MD TT ME TT MF TT MG TT MH TT MI TT MJ TT MK TT RC TT RD TT RA TT RP TT RS TT RB

Ready 140%

Type Pipe Symbol (|) by holding down shift key and press the pipe or backslash key located above the enter key

5.) Next, select **YMD** for the date column (e.g. 20181010), and select **Text** for the method, unit and hour columns.

Transaction Generator.xls [Read-Only] [Compatibility Mode] - Excel

File Home Insert Page Layout Formulas Data Review View Add-ins Tell me what you want to do...

From Access From Web From Text From Other Sources Existing Connections New Query Recent Sources Show Queries From Table Refresh All Get & Transform Connections Properties Edit Links Sort Filter Reapply Advanced Clear Reapply Text to Columns Flash Fill Remove Duplicates Data Consolidate Relationships Manage Data Model What-If Analysis Forecast Sheet Group Ungroup Subtotal Show Detail Hide Detail

A2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code	Sampling Frequency	Alternate MP ID	Qualifier - 1	Qualifier - 2	Qualifier - 3	Qualifier - 4	Qualifier - 5
1																					
2																					
3																					
4																					
5																					
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34																					

Text Import Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

Column data format

General

Text

Date: YMD

Do not import column (skip)

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Data preview

Gener	Gener	Gener	Gener	Gener	Gener	Gener	Gener	Gener	Gener	YMD	Gener	Gener	Gener
RD	I	TT	577	1011	88501	8	1	1.05	1.70	20181010	11:00	-4	
RD	I	TT	577	1011	88501	8	1	1.05	1.70	20181010	12:00	0	
RD	I	TT	577	1011	88501	8	1	1.05	1.70	20181010	13:00	3	
RD	I	TT	577	1011	88501	8	1	1.05	1.70	20181010	14:00	5	
RD	I	TT	577	1011	88501	8	1	1.05	1.70	20181010	15:00	6	

Cancel < Back Next > Finish

Ready

TT AA TT AB TT AC TT MA TT MB TT MC TT MD TT ME TT MF TT MG TT MH TT MI TT MJ TT MK TT RC TT RD TT RA TT RP TT RS TT RB

140%

6.) Select **Finish**.

The text file should now be imported successfully into the Transaction Generator.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code
1		I	TT	439	2001	88101	2	7	105	145	20200304	00:00	3.3	
2	RD	I	TT	439	2001	88101	2	7	105	145	20200310	00:00	4.0	
3	RD	I	TT	439	2001	88101	2	7	105	145	20200316	00:00	5.1	
4	RD	I	TT	439	2001	88101	2	7	105	145	20200322	00:00	7.4	
5	RD	I	TT	439	2001	88101	2	7	105	145	20200328	00:00	2.9	
6	RD	I	TT	439	2001	88101	2	7	105	145	20200328	00:00	2.9	

- 1.) Remove Action Indicator “I” for insert and replace with “D” for DELETE.
- 2.) Highlight rows and go to **Add-ins** then **Generate** an AQS Ready Pipe-Delimited text file with Action Indicator “D”

3.) Upload this file to AQS to remove existing data with ERRORS

	A	B	C	D	E	F	G	H	I	J	K	L	M
	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value
1		D	TT	439	2001	88101	2	7	105	145	20200304	00:00	3.3
2	RD	D	TT	439	2001	88101	2	7	105	145	20200310	00:00	4.0
3	RD	D	TT	439	2001	88101	2	7	105	145	20200316	00:00	5.1
4	RD	D	TT	439	2001	88101	2	7	105	145	20200322	00:00	7.4
5	RD	D	TT	439	2001	88101	2	7	105	145	20200328	00:00	2.9
6	RD	D	TT	439	2001	88101	2	7	105	145	20200328	00:00	2.9

TT RD transactions from Mar 25 2021 03-55-06 PM .txt - Notepad

```

RD|D|TT|439|2001|88101|2|7|105|145|20200304|00:00|3.3|
RD|D|TT|439|2001|88101|2|7|105|145|20200310|00:00|4.0|
RD|D|TT|439|2001|88101|2|7|105|145|20200316|00:00|5.1|
RD|D|TT|439|2001|88101|2|7|105|145|20200322|00:00|7.4|
RD|D|TT|439|2001|88101|2|7|105|145|20200328|00:00|2.9|
    
```

Use Transaction Generator to **CORRECT** data. After making corrections, update the Action Indicator to "I" for Insert. Highlight all rows with data, select "Add-Ins" in the menu tab and then "Generate Transactions."

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	TT RD	Action Code	State Code	County Code	Site ID	Parameter Code	Parameter Occurrence Code	Sample Duration	Unit	Method	Date	Start Time	Sample Value	Null Data Code
1														
2	RD	I	TT	439	2001	88101	2	7	105	145	20200304	00:00	3.3	
3	RD	I	TT	439	2001	88101	2	7	105	145	20200310	00:00	4.0	
4	RD	I	TT	439	2001	88101	2	7	105	145	20200316	00:00	5.1	
5	RD	I	TT	439	2001	88101	2	7						
6	RD	I	TT	439	2001	88101	2	7						

TT RD transactions from Mar 25 2021 03-55-06 PM .txt - Notepad

```

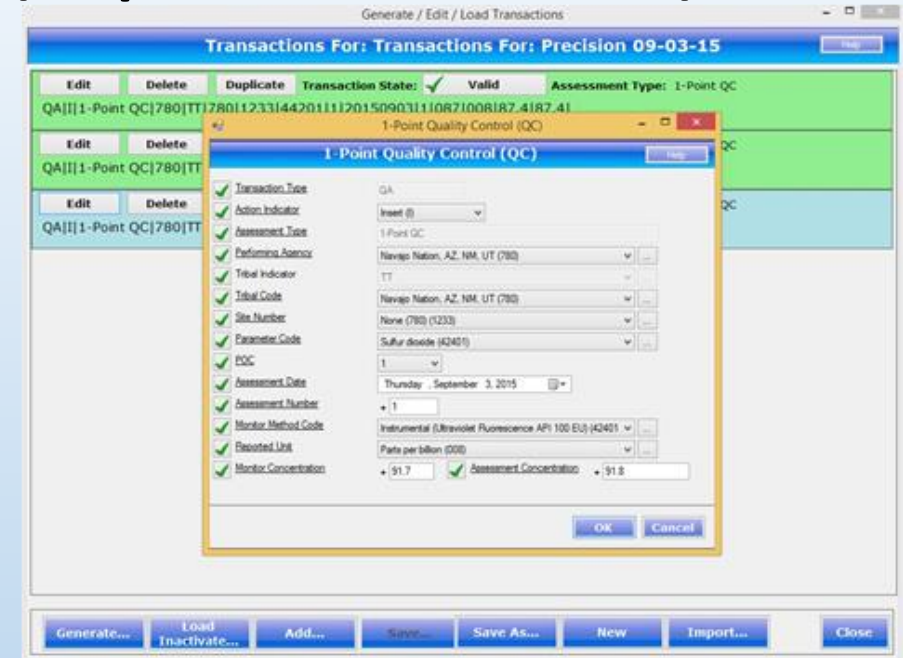
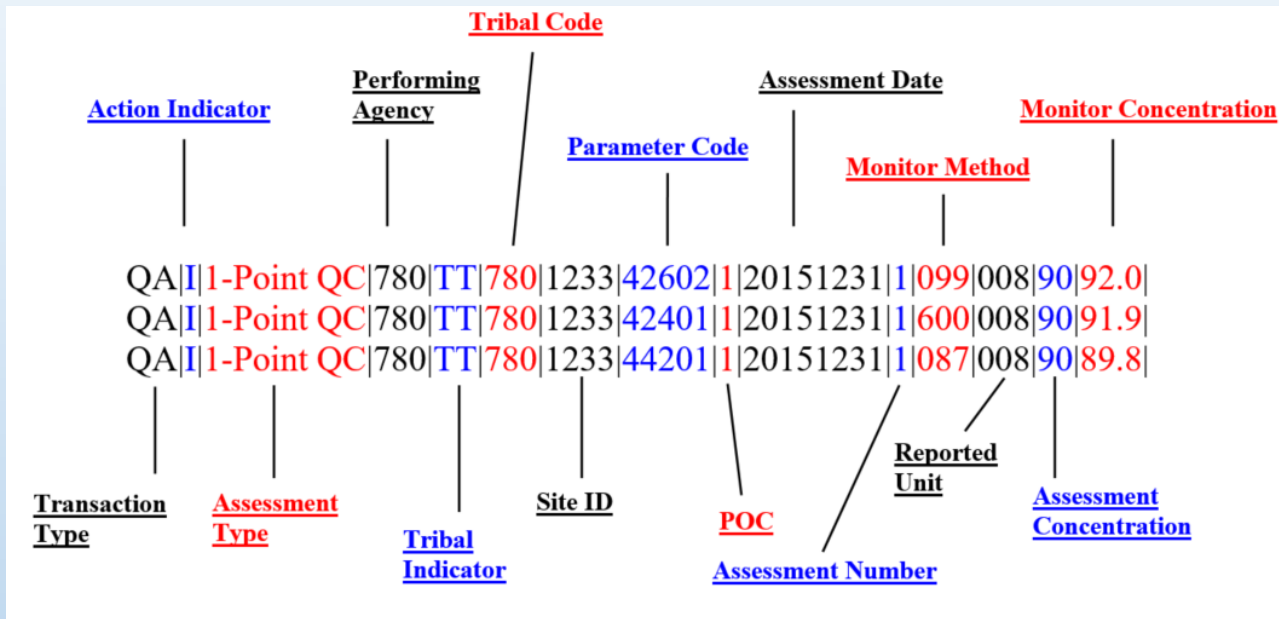
File Edit Format View Help
RD|I|TT|439|2001|88101|2|7|105|145|20200304|00:00|3.3|
RD|I|TT|439|2001|88101|2|7|105|145|20200310|00:00|BA|
RD|I|TT|439|2001|88101|2|7|105|145|20200316|00:00|BA|
RD|I|TT|439|2001|88101|2|7|105|145|20200322|00:00|BA|
RD|I|TT|439|2001|88101|2|7|105|145|20200328|00:00|2.9|
    
```

Upload the CORRECTED Pipe-Delimited text file to AQS



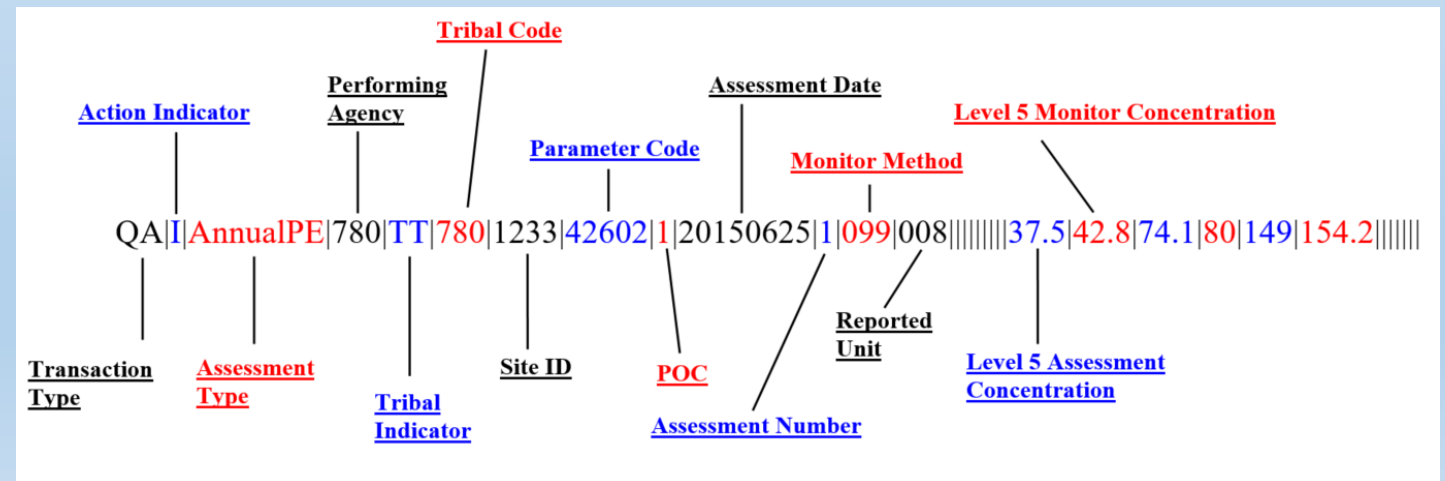
Loading Quality Assurance Data to AQS

Examples of QA Transactions (Pipe-Delimited)

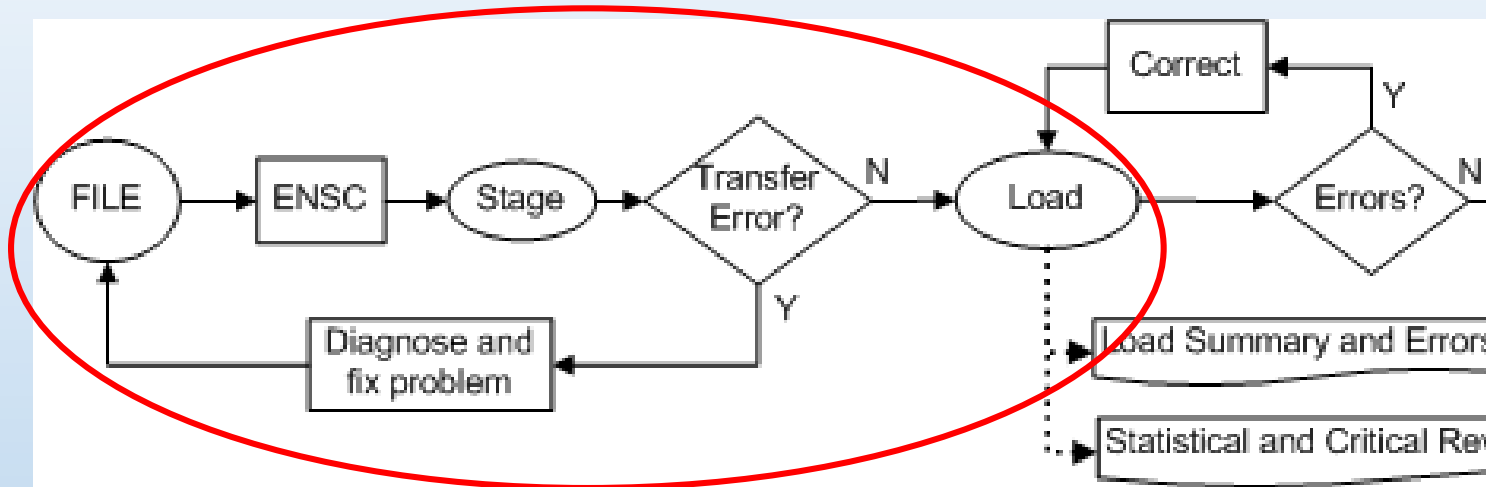


QA 1-Point QC Check on Gaseous Analyzers (NO₂, SO₂, O₃)

QA Annual Performance Audit Results for Gaseous Analyzers (NO₂)



QA Data Submission Process



The screenshot shows the 'Express Request: AQS Submit' form. The form includes the following fields and options:

- Select a Document to Upload (max. size 1 GB): Browse...
- Enter Sender's Email Address to Notify of Transaction Status Changes:
- AQS User ID:
- Additional Data Flow Specific Information:
 - Screening Group:
 - File Type:
 - Final Processing Step:
 - Stop On Error:
- [Provide information \(meta data\) about this Document \(recommended\)](#)
- Buttons: Cancel, SEND DATA

A red arrow points to the 'Final Processing Step' dropdown menu.

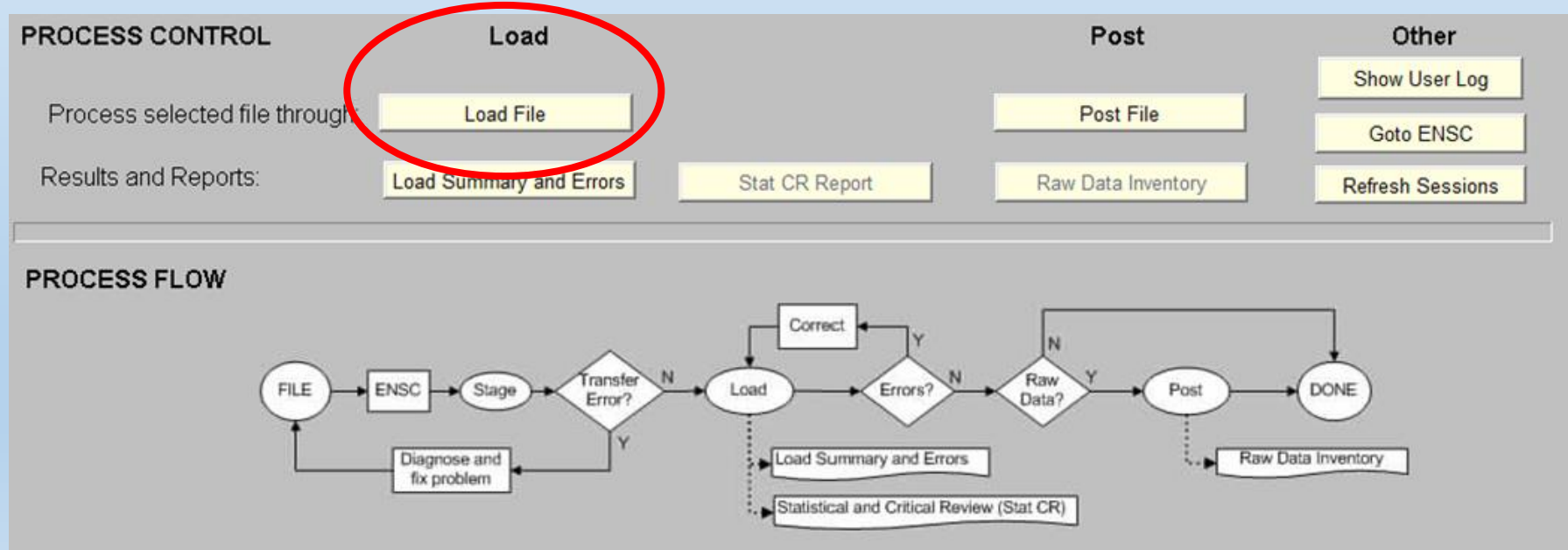
- **Login to ENSC**
- QA Data File is submitted by ENSC to AQS as a **Staged File**
- You will then go into **AQS Batch From** and **Load the QA Data File**

Load QA Data File in AQS

Batch Form → Process Control

- **LOAD** data is **ONLY viewable by the screening group**
- Raw Data on the other hand will go to POST
- **POST** data is **viewable by the public**

HISTORY AND STATUS				
Submission Date	File Name	User Name	Records In File	Date (last)
20140805 14:44	RAW_DATA_LOAD.txt	CHRIS CHAPMAN	5	20140805 15:27
20140805 14:43	QA_DATA_LOAD.txt	CHRIS CHAPMAN	128	20140805 15:04



Loading Files to AQS Video

Poll Question 6



- So far what do you see as the biggest challenge in your learning of AQS?
 - Creating a Site and Monitor in AQS
 - How to Format Data for AQS upload
 - Loading Raw Data & QA Data to AQS
 - Correcting Data in AQS
 - No challenges so far...

Resources



AQS Manuals and Guides:

- <https://www.epa.gov/aqs/aqs-manuals-and-guides>

AQS Training Videos, e-Learning, Webinars and Other Trainings

- <https://aqs.epa.gov/aqsweb/training/Training.html>

NAU ITEP AQS Fast Track Videos

- <https://mediaspace.nau.edu/channel/AQS%2BFast%2BTrack/69472942>

AQS Tribal Q&A Session

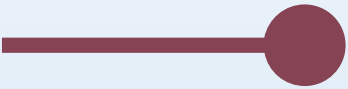
- Bi-monthly Q&A for AQS tribal members (Second Wednesday of the month) contact McIntyre.Pamela@epa.gov

Resources



Current AQS User Support Process

- EPA Enterprise IT Service Desk no longer provides AQS support
 - Only password resets & registration
- Users will need to email their Regional AQS contact
 - A. Problem statement with expected results
 - B. Step by step description of what the user did that resulted in issue.
 - C. The actual results received
 - D. Attachments that show the issue, error, and any logs (reports, forms, batch load)



Thank you for joining today's webinar!