Onroad Input and Emissions Submittals

Laurel Driver

July 10, 2012

EIS vs NEI

- Emission Inventory System (EIS)
  - Data repository for air emissions data used to create the NEI
  - Contains State, Local, Tribal and EPA submitted data
  - Can store multiple emissions values for the same unit/process
  - Can store annual, monthly, daily data (e.g., fires, events)
  - Data available via a password-protected web site
    - EIS Gateway https://eis.epa.gov/eis-system-web/welcome.html

- National Emission Inventory (NEI)
  - Snapshot in time from EIS
  - Inventory version shared with the public
  - One emissions value per process selected
  - Annual emissions values

S/L/T Reporting Requirement

- Air Emissions Reporting Rule (AERR) http://www.epa.gov/ttn/chief/aerr/
  - Complete criteria pollutant inventory every 3 years
    - All point sources (100 tpy potential to emit threshold)
    - Nonpoint Sources
    - **Onroad** and Nonroad sources
    - Events (wildfires and prescribed fires)
    - 2011 Emissions due 12/31/2012, EIS window opens 6/1/2012
  - Annual reporting for type A point source facilities
    - SO2, NOx, CO with potential to emit ≥ 2,500 tpy
    - VOC, PM, NH3 with potential to emit ≥ 250 tpy
    - Pb with potential to emit ≥ 5 tpy (to be amended to agree with Lead NAAQS level of ≥ 0.5 tpy)
  - HAPs are submitted voluntarily by many S/L/Ts and are encouraged as part of an integrated report

Uses of the NEI

- The NEI is one of the key inputs for :
  - Modeling of national rules
    - NAAQS reviews, CSAPR, etc
  - Non-attainment Designations
  - NATA Review – toxics risk modeling
  - Trends reports and analyses

Components of the EIS

- Six different data categories
  - Facility Inventory
  - Point Emissions
  - Nonpoint Emissions
  - **Onroad Emissions**
  - Nonroad Emissions
  - Event Emissions (wildfires and prescribed fires)
  - No biogenic emissions, although these are part of EPA's modeling files

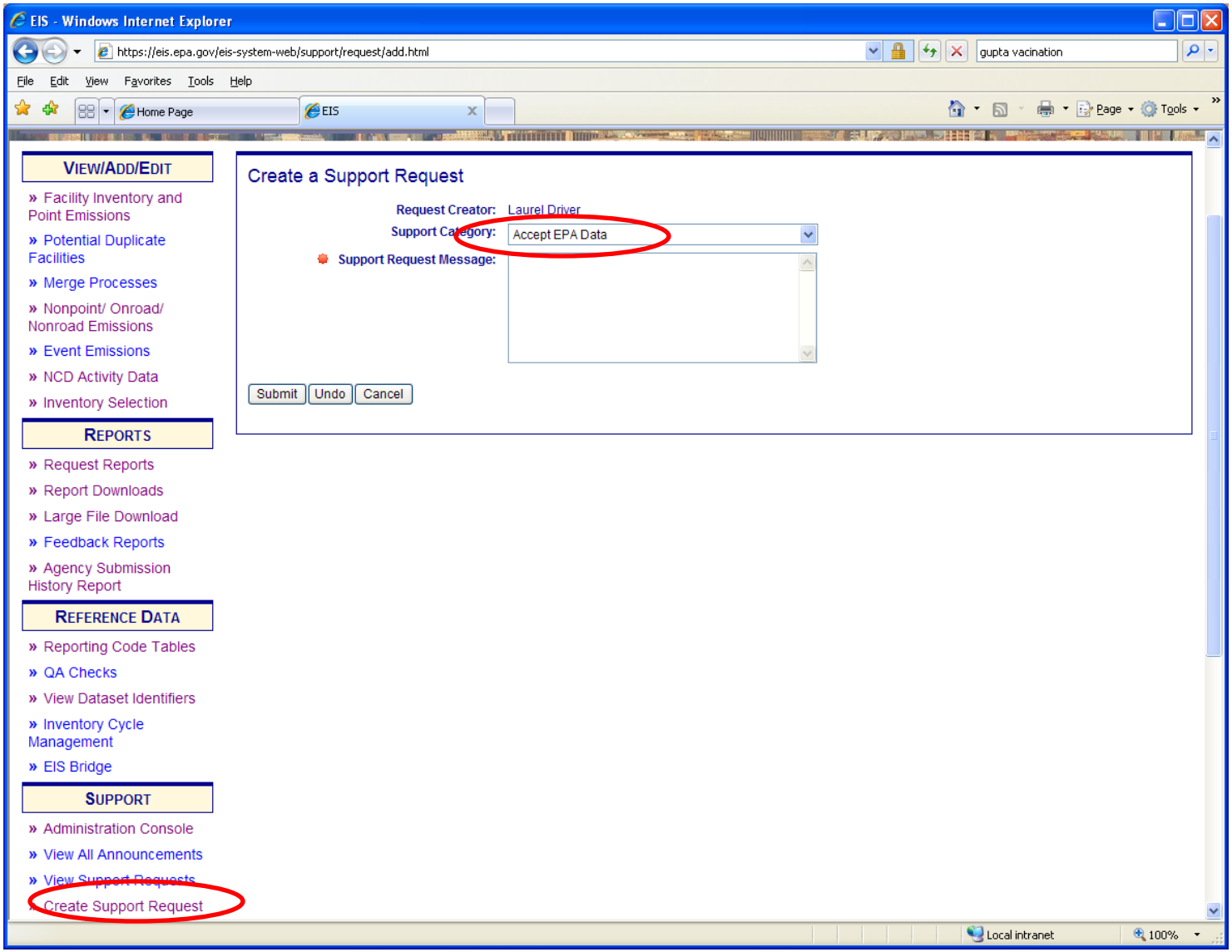
Onroad Submissions

- Emissions in NEI must be from an EPA-approved model
  - MOVES
  - EMFAC (California)
- EPA strongly encourages submittals of MOVES County Database (CDB) tables rather than emissions
- Tribes and CA should submit emissions

Why Inputs?

- EPA prefers to receive activity data instead of emissions as they allow for more in-depth analysis and consistent, integrated emissions in the NEI. If you do not submit onroad input data, EPA will generate emission estimates using national defaults.
- EPA will provide a set of default onroad inputs for agencies to review/ customize as desired
- Agencies may accept EPA defaults in lieu of submittals by sending a “support request” to EIS that states this.
- To the extent resources allow, EPA will assist agencies to build their submittals.

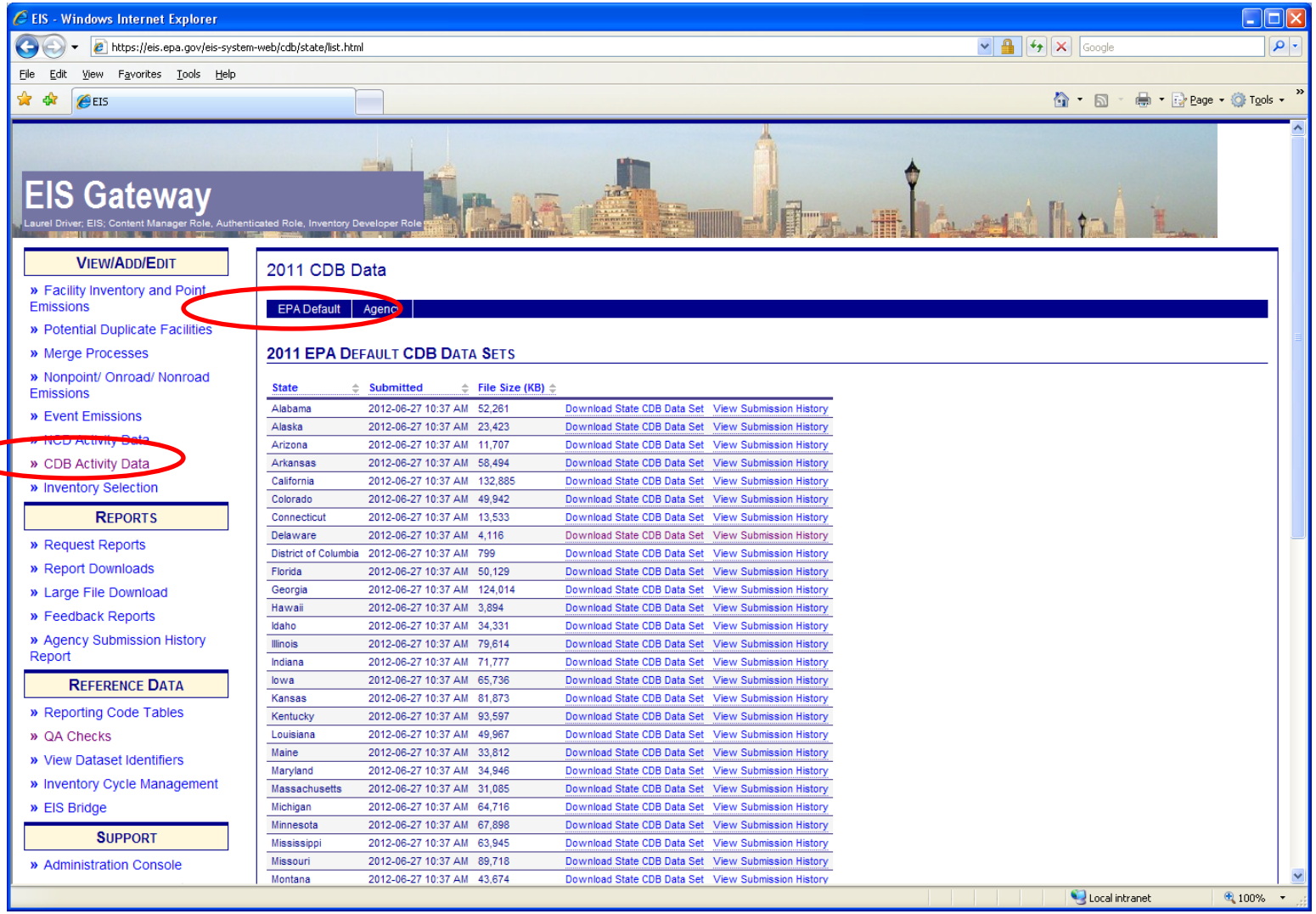
Support Request



Summary of County Database (CDB) Submittal Steps

- Review instructions on the 2011 NEI web page
- Pick up your draft default CDBs from EIS
- Compile ONLY county CDBs with improvements
- Repeatedly run QA script and address errors that are found until there are no errors
- Submit:
  - 1. QA tool report
  - 2. Checklist
  - 3. Documentation
  - 4. CDB folders for each county CDB
- EACH SUBMITTAL IS A COMPLETE REPLACEMENT OF PREVIOUS SUBMITTALS!
  - Thus an agency's final submittal must include all counties they wish to submit

Pick up your draft default CDBs



Update Inputs
Compile ONLY CDBs for Counties with improvements

Table Name	Description
countyyear	Stage 2 program description
emissionratebyage	Alternate California standards
sccroadtypedistribution	Distribution of SCC vehicle classes to SCC road types
auditlog	Log of changes to the county database
avft	Alternate diesel sales fractions
avgspeeddistribution	Average speed distributions
county	County description
dayvmtfraction	Distribution of VMT to day types
fuelformulation	Description of fuels
fuelsupply	Market share of fuels by month
fuelsupplyyear	Year of fuel supply
hourvmtfraction	Distribution of VMT to hours of the day
hpmsvtypeyear	Annual VMT by HPMS vehicle class
imcoverage	Description of the I/M program
monthvmtfraction	Distribution of the VMT to months of the year
roadtype	Description of the road types
roadtypedistribution	Distribution of the VMT to road types
sourcetypeagedistribution	Distribution of vehicle population to vehicle age
sourcetypeyear	Vehicle populations
state	Description of the state
year	Year of evaluation
zone	Allocation of activity to zones
zonemonthhour	Temperature and humidity values
zoneroadtype	Allocation of vehicle operation to zones

1. QA Report

- PSC_QA_Report.txt
- QA tool is availablbe for download on the 2011 NEI website. MySQL tool checks CDB in their native format
- Users can run the QA tool script on all CDBs for submittal
- The QA tool checks CDB format, naming convention, ranges, sums, etc in each CDB table
- The QA tool generates a report for inclusion with EIS submittal
- If the tool finds any errors, they must be corrected before EIS will accept them: EIS will reject any submittal with a QA report that indicates errors.

Example QA Report Results

1_DEDNR_QA_Report.txt - Notepad

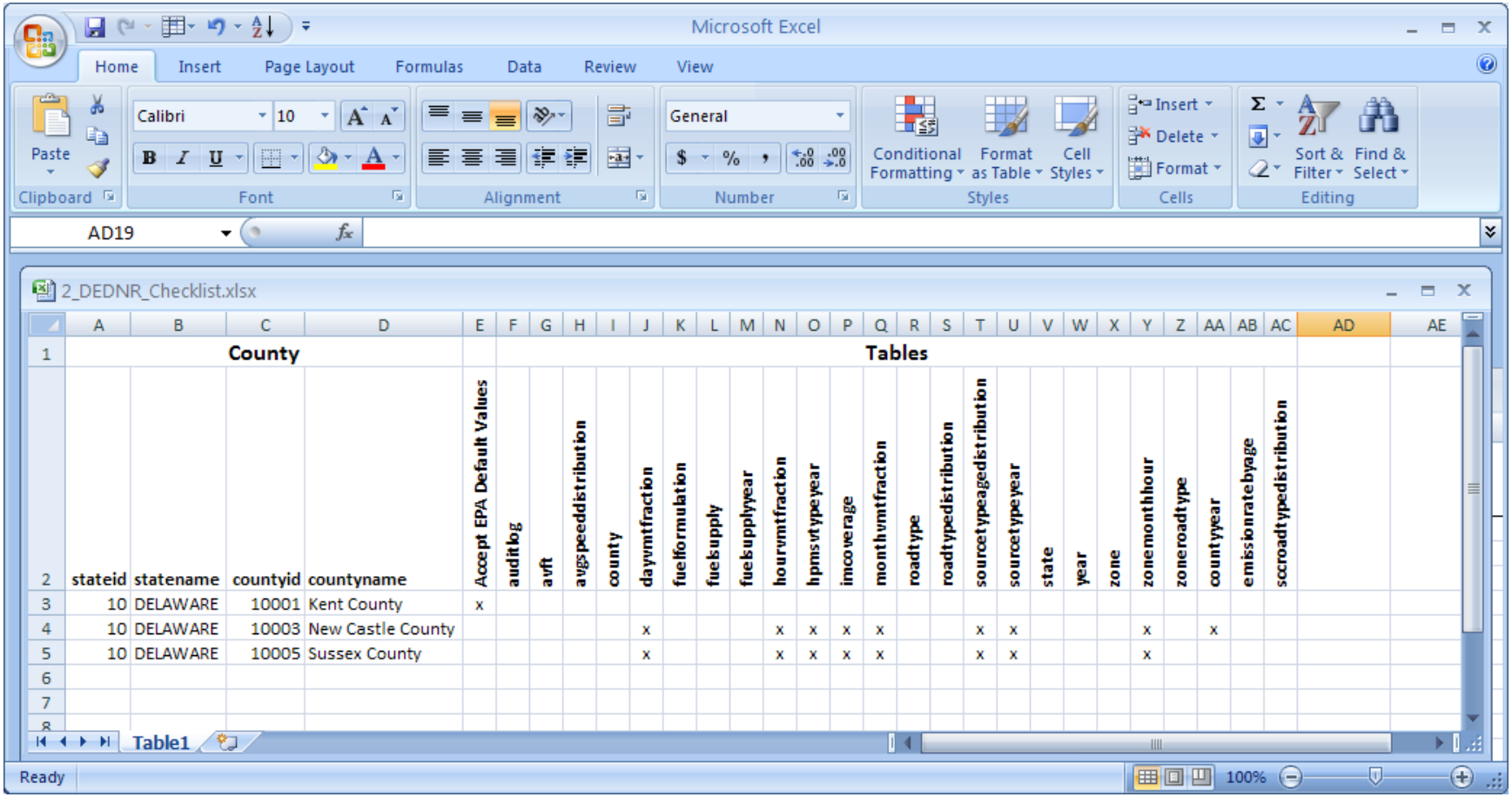
File Edit Format View Help

countyID	status	tableName	checkNumber	testDescription	testValue	count	dataBaseName	dayID	fuelFormulationID	fuelSub
10001	Error	avgspeeddistribution	11	sum of avgSpeedFraction <> 1.0	0	NULL	c10001y2011_in20120601	NULL	NULL	NULL

2. Check list

- PSC_Checklist.xls (or xlsx)
- This checklist is available for download on the 2011 website
- The checklist indicates
  - Which tables in which counties contain updates to EPA defaults
  - For which counties agencies accept EPA defaults
- The checklist must be included in the EIS submittal

Example of Checklist



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1			County			Tables																									
2	stateid	statename	countyid	countyname	Accept EPA Default Values	auditlog	avft	avgspeeddistribution	county	dayvmtfraction	fuelformulation	fuelsupply	fuelsupplyyear	hourvmtfraction	hpmsvtypeyear	imcoverage	monthvmtfraction	roadtype	roadtypedistribution	sourcetypeagedistribution	sourcetypeyear	state	year	zone	zonemonthhour	zoneroadtype	countyyear	emissionratebyage	sccroadtypedistribution		
3	10	DELAWARE	10001	Kent County	x																										
4	10	DELAWARE	10003	New Castle County						x				x	x	x	x			x	x				x		x				
5	10	DELAWARE	10005	Sussex County						x				x	x	x	x			x	x				x						
6																															
7																															

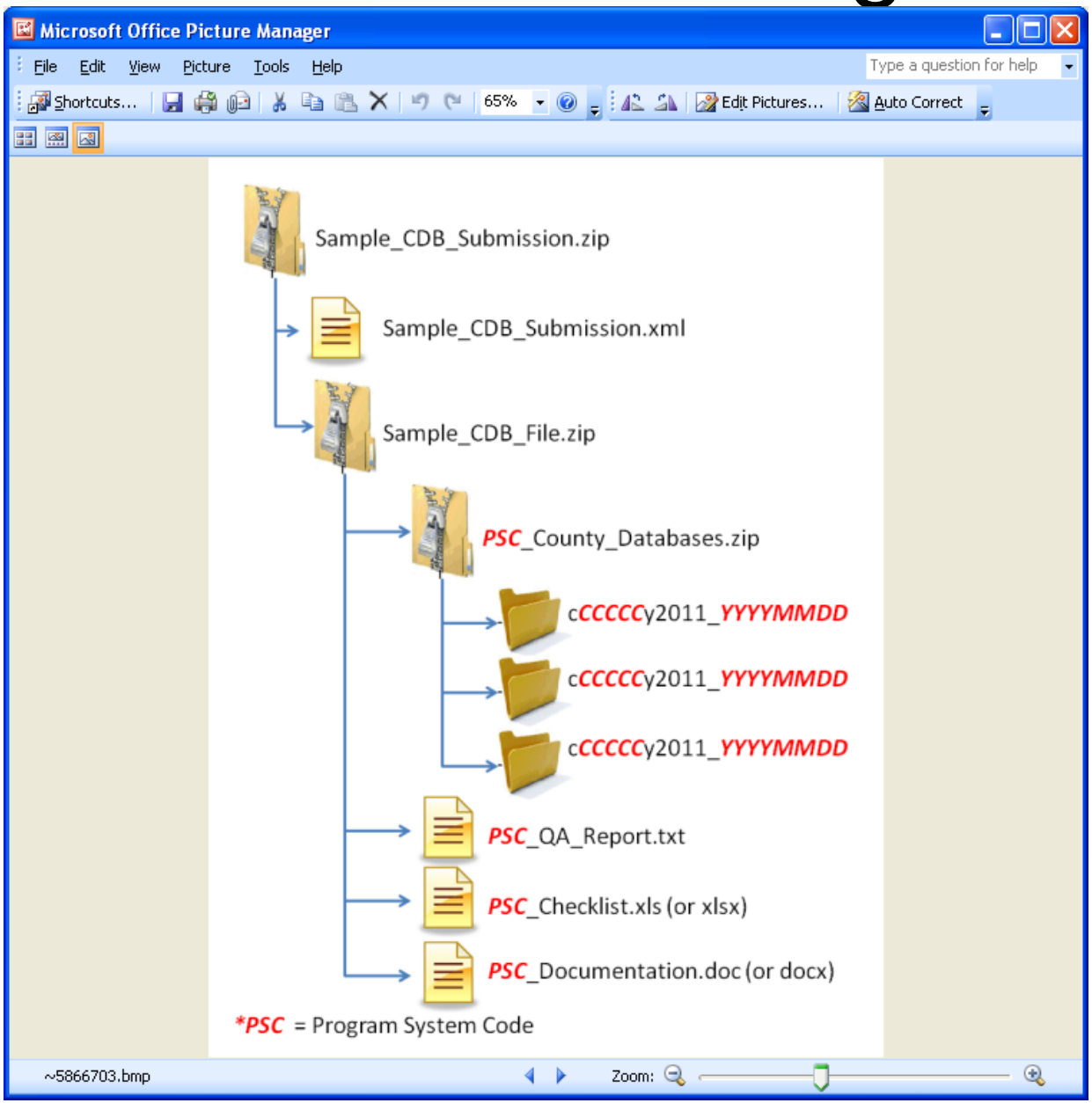
3. Documentation

- PSC_Documentation.doc (or docx)
- A word file that explains the source of SLT provided input data. A .doc or .docx file is required
- Additional supporting files of any format are optional (e.g., .pdf or .xls)

4. CDB Folders

- PSC_County_Database.zip
- Zipped file containing individual folders for each county's CDB, and labeled with a creation date in the name (example "c10001y2011_20120601."
- CDBs must include a minimum of the 24 tables listed in the summary checklist for each submitted county.
- The submitter does not need to submit CDBs for counties where he has no improvements over EPA defaults.
- There will be no representative county submittals.
- Format is the same MySQL files that MOVES uses.
- EACH CDB SUBMITTAL IS A COMPLETE REPLACEMENT OF PREVIOUS SUBMITTALS

Submittal Package



Creating XML HEADER

- 2 ways
  - Using staging tables
    - CERS and ExchangeHeader tables only -- currently under revision
  - Edit XML available from 2011 NEI page

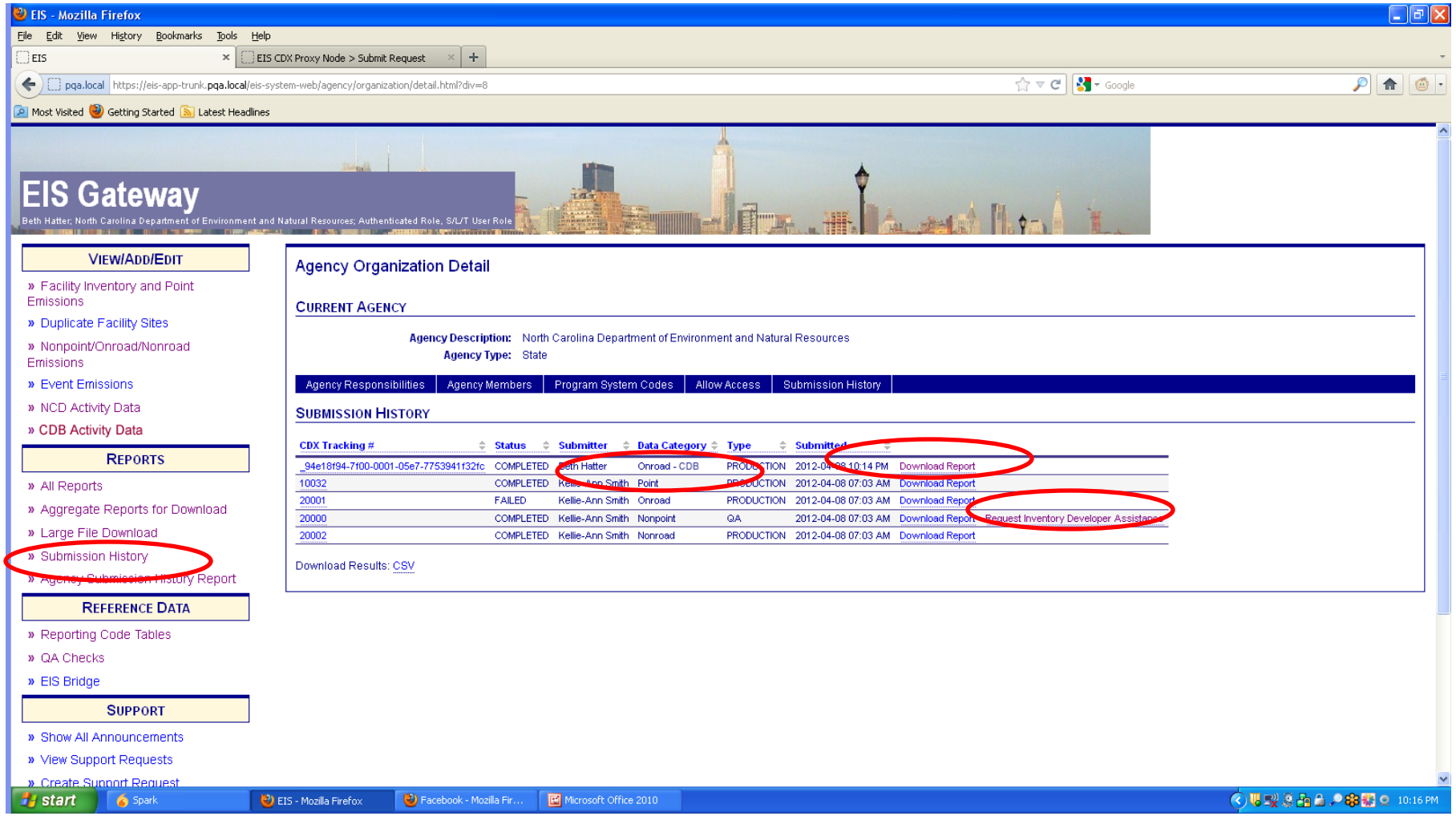
Editing XML text

```
<hdr:Document id="IDxx" xmlns:hdr="http://www.exchangenetwork.net/schema/header/2" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.exchangenetwork.net/schema/header/2 http://www.exchangenetwork.net/schema/header/2/header_v2.0.xsd">
 <hdr:Header>
  <hdr:AuthorName>Your Name</hdr:AuthorName>
  <hdr:OrganizationName>Your Organization</hdr:OrganizationName>
  <hdr:DocumentTitle>EIS</hdr:DocumentTitle>
  <hdr:CreationDateTime>2012-04-10T14:02:39</hdr:CreationDateTime>
  <hdr:Keywords></hdr:Keywords>
  <hdr:Comment></hdr:Comment>
  <hdr:DataFlowName>EIS_v1_0</hdr:DataFlowName>
  <hdr:Property>
   <hdr:PropertyName>SubmissionType</hdr:PropertyName>
   <hdr:PropertyValue>QA</hdr:PropertyValue>
  </hdr:Property>
  <hdr:Property>
   <hdr:PropertyName>DataCategory</hdr:PropertyName>
   <hdr:PropertyValue>Onroad</hdr:PropertyValue>
  </hdr:Property>
  <hdr:Property>
   <hdr:PropertyName>CDBDataFile</hdr:PropertyName>
   <hdr:PropertyValue>Sample_CDB_File.zip</hdr:PropertyValue>
  </hdr:Property>
 </hdr:Header>
 <hdr:Payload>
  <cer:CERS xmlns:cer="http://www.exchangenetwork.net/schema/cer/1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://www.exchangenetwork.net/schema/cer/1 http://www.exchangenetwork.net/schema/cer/1/index.xsd">
   <cer:UserIdentifier>youruserid@xyz.gov</cer:UserIdentifier>
   <cer:ProgramSystemCode>yourPSC</cer:ProgramSystemCode>
   <cer:EmissionsYear>2011</cer:EmissionsYear>
  </cer:CERS>
 </hdr:Payload>
</hdr:Document>
```

EIS Feedback

- EIS checks
  - Required files and folders are present
  - Naming conventions and formats are met
  - Counties in QA report match counties in CDB folders
  - QA Report confirms there are no errors from the QA tool checks

Feedback Report for CDBs Submittal



What EPA will do with submittals

- Collect and compile submitted CDBs
- Run QA tool again
- Contact agencies with questions
- Run latest available MOVES model for CAP/HAP at monthly or finer level
- Load emissions into EIS

Emissions Submittals

- Agencies may submit emissions, but inputs are preferred
- Multiple emissions data are accessible in EIS. If an agency submits, EPA and SLT data will be present.

Onroad Emissions Submittals

- Requirements for submitting onroad emissions inventory
  - CERS
  - Exchange Header
  - Location
  - Emissions Process
  - Reporting Period
  - Emissions
- Optional
  - Excluded Location Parameter

Required - CERS

- Required
  - User ID (EIS login)
  - Program System Code
  - Emissions Year
- Optional
  - Model
  - Model Version
  - Emissions Creation Date
  - Submittal Comment

Required - Exchange Header

Required:
- AuthorName
- OrganizationName
- DocumentTitle (EIS)
- DataFlowName (EIS_v1_0)
- SubmissionType ("QA" or "Production")
- PropertyName ("Data Category")
- PropertyValue ("Onroad")

Optional:
- Keywords
- Comments
- PropertyName ("CDBDataFile" - required when submitting CDB data)
- PropertyValue (the name of the CDB zip file being submitted - required when submitting CDB data)

Required - Location

- Required
  - State/County FIPS or Tribal Code
- Optional
  - Census Tract Identifier
  - Shape Identifier
  - Location Comment

Required - Emissions Process

- Required
  - State/County FIPS or Tribal Code
  - Source Classification Code
  - Emissions Type Code
- Optional
  - Census Tract
  - Shape Identifier
  - Process Comment

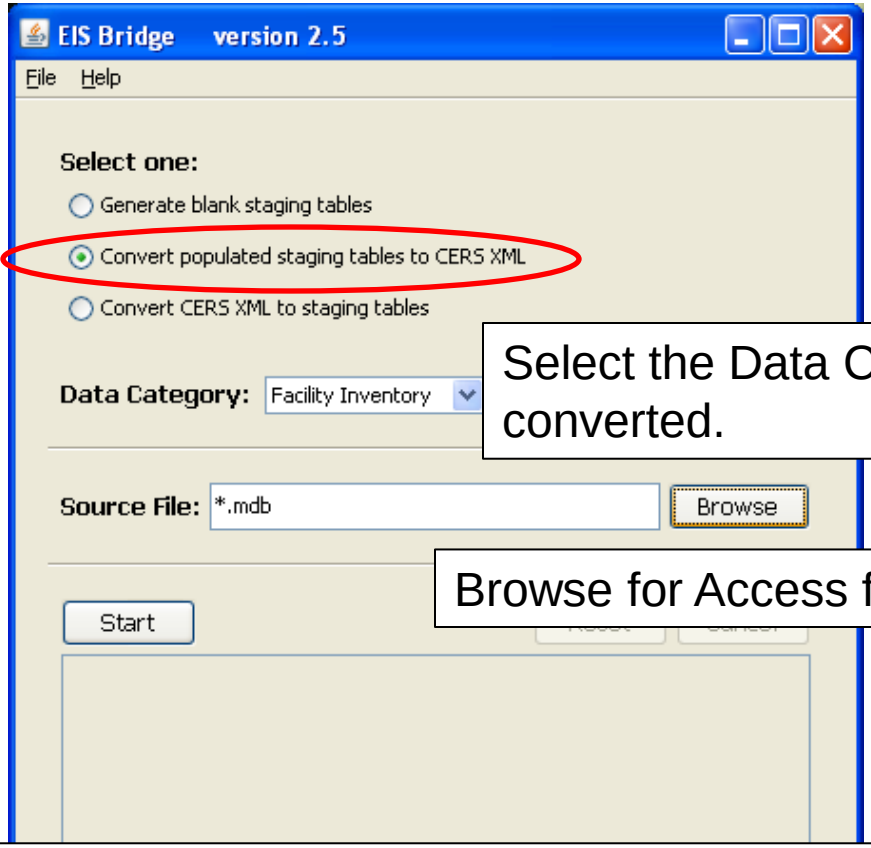
Required - Reporting Period

- Required
  - State/County FIPS or Tribal Code
  - Source Classification Code
  - Emissions Type Code
  - Reporting Period Type Code
  - Calculation Parameter Type Code - **Only Onroad** (“I” for input)
  - Calculation Parameter Value and UOM – **Only Onroad** (VMT, E3Mile)
  - Calculation Parameter Material Code – **Only Onroad** (“368” for vehicle)
- Optional
  - Census Tract and Shape Identifier
  - Calculation Data Year – Only Onroad
  - Calculation Data Source – Only Onroad
  - Reporting Period Comment

Required - Emissions

- Required
  - State/County FIPS or Tribal Code
  - Source Classification Code
  - Emissions Type Code
  - Reporting Period type Code
  - Pollutant Code
  - Total Emissions and UOM
- Optional
  - Census Tract and Shape Identifier
  - Emissions Comment

Creating XML File via the Bridge Tool



Select the Data Category being converted.

Browse for Access file and select “Start”.

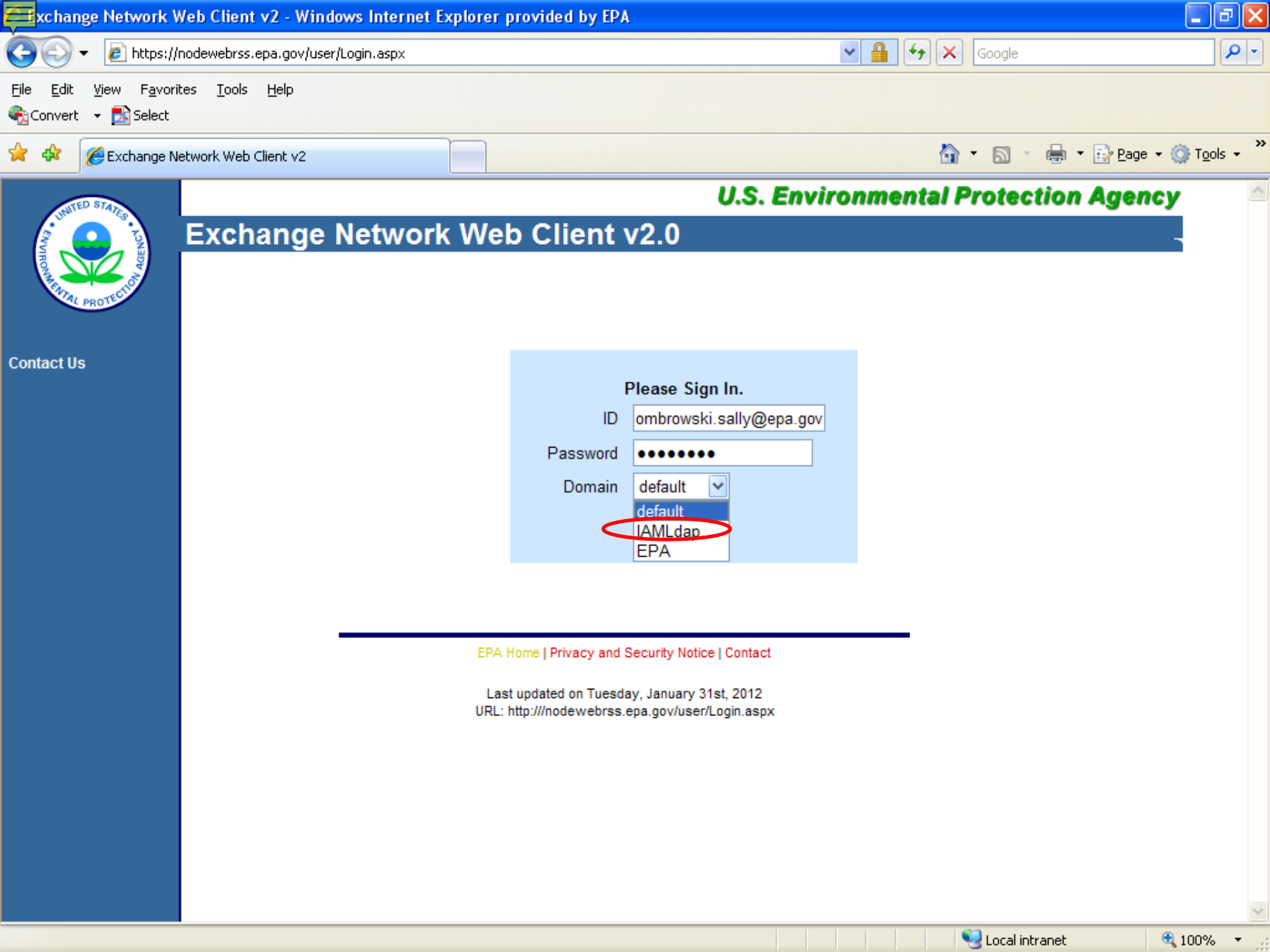
REMEMBER: The Bridge Tool works on Access 2003. If your file is saved as Access 2007 or later, you will need to do a “save as” to Access 2003 prior to using the Bridge Tool.

Common Bridge Tool Errors

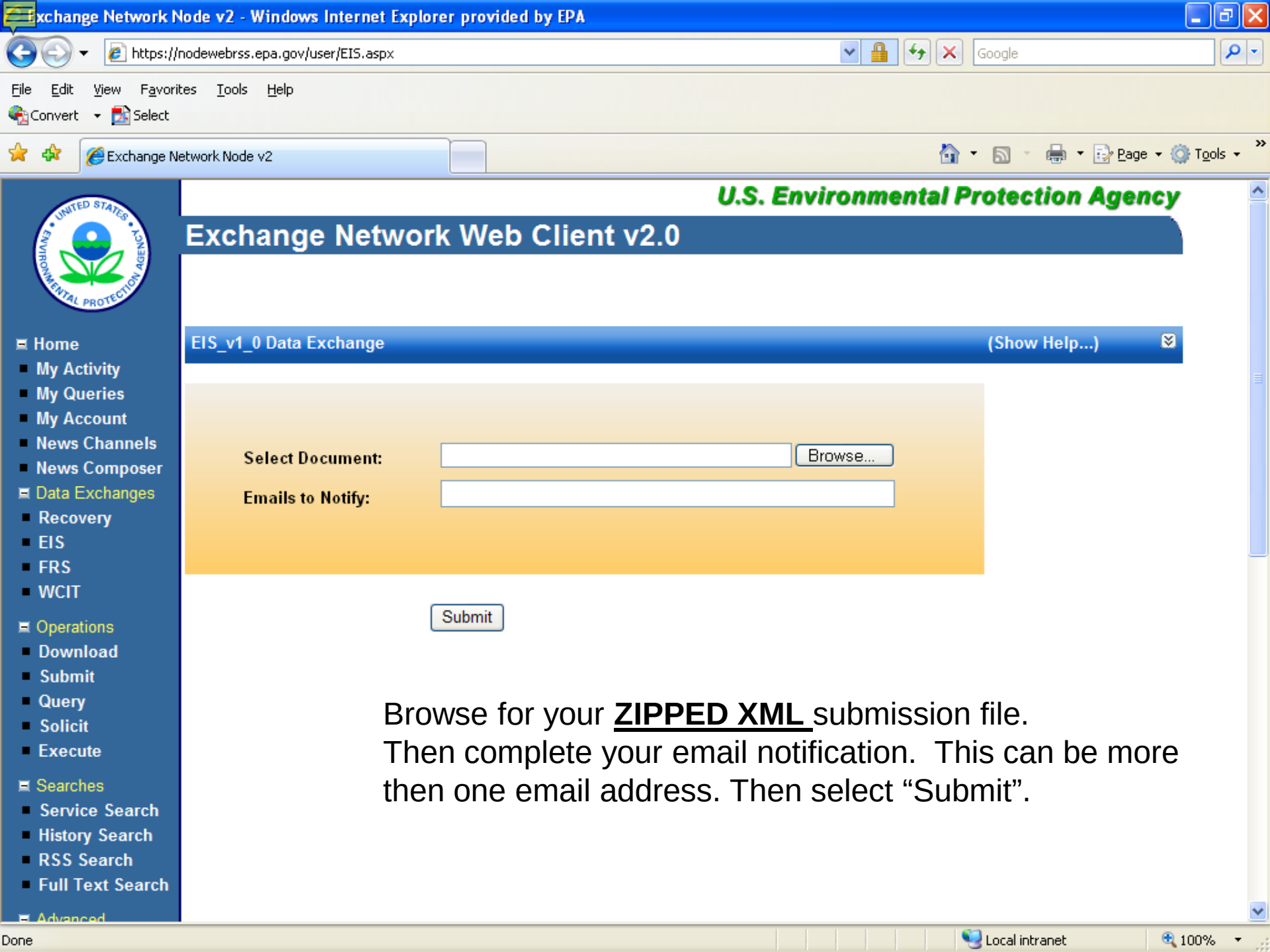
- Look at your xml file prior to zipping it using Note Pad or your web browser. Make sure you see all of the components.

Submitting the zipped XML File

- Two methods
  - Node-to-node
  - CDX web client (most common method)
    - https://nodewebrss.epa.gov/user/Login.aspx
    - Use Gateway login and password
- QA and Production Environment
  - QA is always open to check your data. Does not change anything in the EIS
  - Production submission is your official submission and will update the EIS
  - Recommend always sending to QA first


xchange Network Web Client v2 - Windows Internet Explorer provided by EPA
https://nodewebrss.epa.gov/user/Login.aspx
Google
File Edit View Favorites Tools Help
Convert Select
Exchange Network Web Client v2
Page Tools
U.S. Environmental Protection Agency
Exchange Network Web Client v2.0
Contact Us
Please Sign In.
ID ombrowski.sally@epa.gov
Password ••••••••
Domain default
default
IAMLdap
EPA
EPA Home | Privacy and Security Notice | Contact
Last updated on Tuesday, January 31st, 2012
URL: http:///nodewebrss.epa.gov/user/Login.aspx
Local intranet
100%

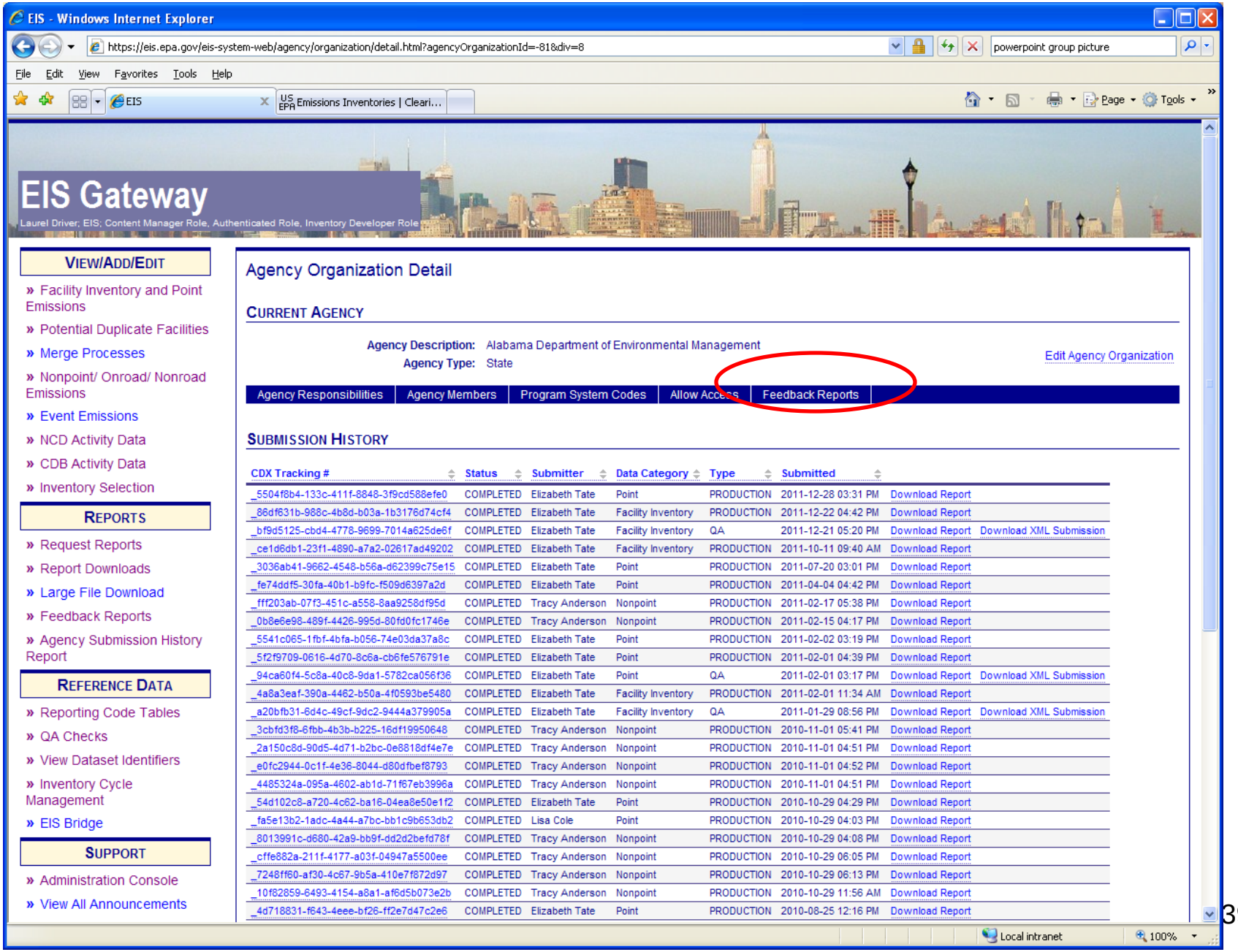
Exchange Network Node v2 - Windows Internet Explorer provided by EPA
https://nodewebrss.epa.gov/user/Login.aspx
File Edit View Favorites Tools Help
Convert Select
Exchange Network Node v2
Page Tools
U.S. Environmental Protection Agency
Exchange Network Web Client v2.0
Welcome to the Node 2.0 Web Interface
RSS/ATOM News Channel: RecoveryChannel
RSS ATOM
RSS Channel: Recovery
Published Date: Tue, 31 Jan 2012 08:17:30 -0500
Last Built Date: Tue, 31 Jan 2012 08:17:30 -0500
Description: Recovery Channel for interfacing to Recovery.gov
Language: en-us
Home
My Activity
My Queries
My Account
News Channels
News Composer
Data Exchanges
Recovery
EIS
FRS
WCIT
Operations
Download
Submit
Query
Solicit
Execute
Searches
Service Search
History Search
RSS Search
Full Text Search
Advanced
Select EIS from the left-hand side bar
ecovery.gov submitted on January 30, 2012
Tue, 24 Jan 2012 13:12:16 -0500
EPA Weekly Financial and Activity Report for January 24, 2012
This is the EPA Weekly Financial and Activity Report for Recovery.gov submitted on January 24, 2012
Tue, 17 Jan 2012 13:47:35 -0500
EPA Weekly Financial and Activity Report for January 17, 2012
This is the EPA Weekly Financial and Activity Report for Recovery.gov submitted on January 17, 2012
Tue, 10 Jan 2012 10:18:21 -0500
EPA Weekly Financial and Activity Report for January 10, 2012
This is the EPA Weekly Financial and Activity Report for Recovery.gov submitted on January 10, 2012
Tue, 03 Jan 2012 12:43:13 -0500
EPA Weekly Financial and Activity Report for January 03, 2012
This is the EPA Weekly Financial and Activity Report for Recovery.gov submitted on January 03, 2012
Tue, 27 Dec 2011 13:40:18 -0500
EPA Weekly Financial and Activity Report for December 27, 2011
This is the EPA Weekly Financial and Activity Report for Recovery.gov submitted on December 27, 2011
Tue, 20 Dec 2011 11:34:57 -0500
Done
Local intranet
100%



Browse for your **ZIPPED XML** submission file.
Then complete your email notification. This can be more then one email address. Then select “Submit”.

Email Notifications

- First email, from “CDXNotification”, immediate
  - Transaction Status: **Pending**
- Second email, also from “CDXNotification” , when EIS completes processing
  - Transaction Status: **Completed**. Feedback report is available at EIS Gateway
- Third email, from “noreply” (EIS Gateway), on quarter hours
  - Status : Completed or **Failed**
    - Wrong file submission error – Usually a zipped Access file is submitted instead of the xml file
    - Window closed error – “User, agency, submission year not authorized”
    - Completed might be for an XML file containing no data
- Go to EIS Gateway and read the Feedback Report and resolve any critical errors and Potential Duplicates


EIS - Windows Internet Explorer
https://eis.epa.gov/eis-system-web/agency/organization/detail.html?agencyOrganizationId=-81&div=8
powerpoint group picture
File Edit View Favorites Tools Help
EIS
Emissions Inventories | Cleari...
Page Tools
EIS Gateway
Laurel Driver; EIS; Content Manager Role, Authenticated Role, Inventory Developer Role
VIEW/ADD/EDIT
» Facility Inventory and Point Emissions
» Potential Duplicate Facilities
» Merge Processes
» Nonpoint/ Onroad/ Nonroad Emissions
» Event Emissions
» NCD Activity Data
» CDB Activity Data
» Inventory Selection
REPORTS
» Request Reports
» Report Downloads
» Large File Download
» Feedback Reports
» Agency Submission History Report
REFERENCE DATA
» Reporting Code Tables
» QA Checks
» View Dataset Identifiers
» Inventory Cycle Management
» EIS Bridge
SUPPORT
» Administration Console
» View All Announcements
Agency Organization Detail
CURRENT AGENCY
Agency Description: Alabama Department of Environmental Management
Agency Type: State
Edit Agency Organization
Agency Responsibilities
Agency Members
Program System Codes
Allow Access
Feedback Reports
SUBMISSION HISTORY
CDX Tracking # Status Submitter Data Category Type Submitted
_5504f8b4-133c-411f-8848-3f9cd588efe0 COMPLETED Elizabeth Tate Point PRODUCTION 2011-12-28 03:31 PM Download Report
_86df631b-988c-4b8d-b03a-1b3176d74cf4 COMPLETED Elizabeth Tate Facility Inventory PRODUCTION 2011-12-22 04:42 PM Download Report
_bf9d5125-cbd4-4778-9699-7014a625de6f COMPLETED Elizabeth Tate Facility Inventory QA 2011-12-21 05:20 PM Download Report Download XML Submission
_ce1d6db1-23f1-4890-a7a2-02617ad49202 COMPLETED Elizabeth Tate Facility Inventory PRODUCTION 2011-10-11 09:40 AM Download Report
_3036ab41-9662-4548-b56a-d62399c75e15 COMPLETED Elizabeth Tate Point PRODUCTION 2011-07-20 03:01 PM Download Report
_fe74ddf5-30fa-40b1-b9fc-f509d6397a2d COMPLETED Elizabeth Tate Point PRODUCTION 2011-04-04 04:42 PM Download Report
_fff203ab-07f3-451c-a558-8aa9258df95d COMPLETED Tracy Anderson Nonpoint PRODUCTION 2011-02-17 05:38 PM Download Report
_0b8e6e98-489f-4426-995d-80fd0fc1746e COMPLETED Tracy Anderson Nonpoint PRODUCTION 2011-02-15 04:17 PM Download Report
_5541c065-1fbf-4bfa-b056-74e03da37a8c COMPLETED Elizabeth Tate Point PRODUCTION 2011-02-02 03:19 PM Download Report
_5f2f9709-0616-4d70-8c6a-cb6fe576791e COMPLETED Elizabeth Tate Point PRODUCTION 2011-02-01 04:39 PM Download Report
_94ca60f4-5c8a-40c8-9da1-5782ca056f36 COMPLETED Elizabeth Tate Point QA 2011-02-01 03:17 PM Download Report Download XML Submission
_4a8a3eaf-390a-4462-b50a-4f0593be5480 COMPLETED Elizabeth Tate Facility Inventory PRODUCTION 2011-02-01 11:34 AM Download Report
_a20bfb31-6d4c-49cf-9dc2-9444a379905a COMPLETED Elizabeth Tate Facility Inventory QA 2011-01-29 08:56 PM Download Report Download XML Submission
_3cbfd3f8-6fbb-4b3b-b225-16df19950648 COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-11-01 05:41 PM Download Report
_2a150c8d-90d5-4d71-b2bc-0e8818df4e7e COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-11-01 04:51 PM Download Report
_e0fc2944-0c1f-4e36-8044-d80dfbef8793 COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-11-01 04:52 PM Download Report
_4485324a-095a-4602-ab1d-71f67eb3996a COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-11-01 04:51 PM Download Report
_54d102c8-a720-4c62-ba16-04ea8e50e1f2 COMPLETED Elizabeth Tate Point PRODUCTION 2010-10-29 04:29 PM Download Report
_fa5e13b2-1adc-4a44-a7bc-bb1c9b653db2 COMPLETED Lisa Cole Point PRODUCTION 2010-10-29 04:03 PM Download Report
_8013991c-d680-42a9-bb9f-dd2d2befd78f COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-10-29 04:08 PM Download Report
_cffe882a-211f-4177-a03f-04947a5500ee COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-10-29 06:05 PM Download Report
_7248ff60-af30-4c67-9b5a-410e7f872d97 COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-10-29 06:13 PM Download Report
_10f82859-6493-4154-a8a1-af6d5b073e2b COMPLETED Tracy Anderson Nonpoint PRODUCTION 2010-10-29 11:56 AM Download Report
_4d718831-f643-4eee-bf26-ff2e7d47c2e6 COMPLETED Elizabeth Tate Point PRODUCTION 2010-08-25 12:16 PM Download Report
Local intranet
100%

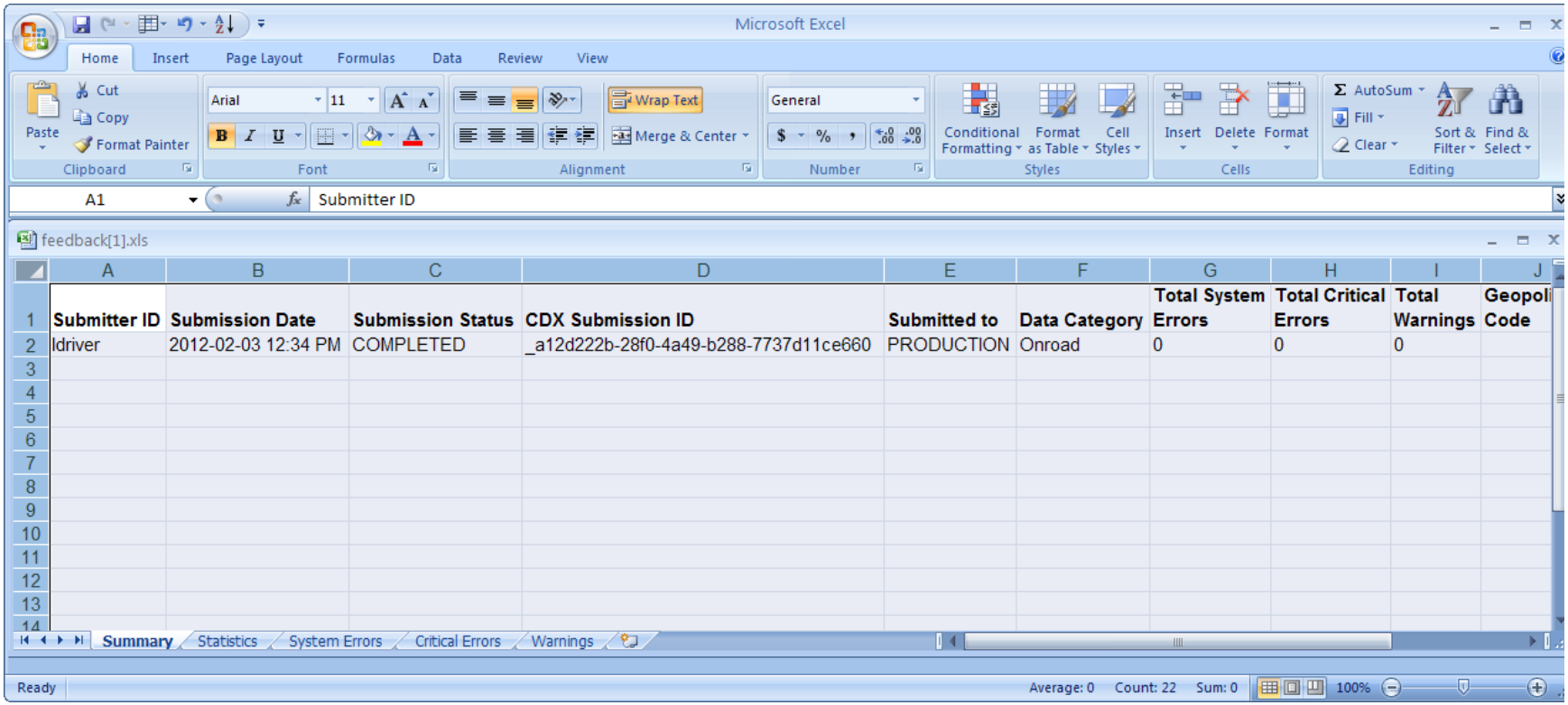
The Feedback Report

- Summary Page
  - Name of submitter
  - What environment submissions was made to
    - QA or Production
  - Data Category submitted
    - Onroad
  - Total number of critical and warning errors.

Feedback Report
Critical Errors

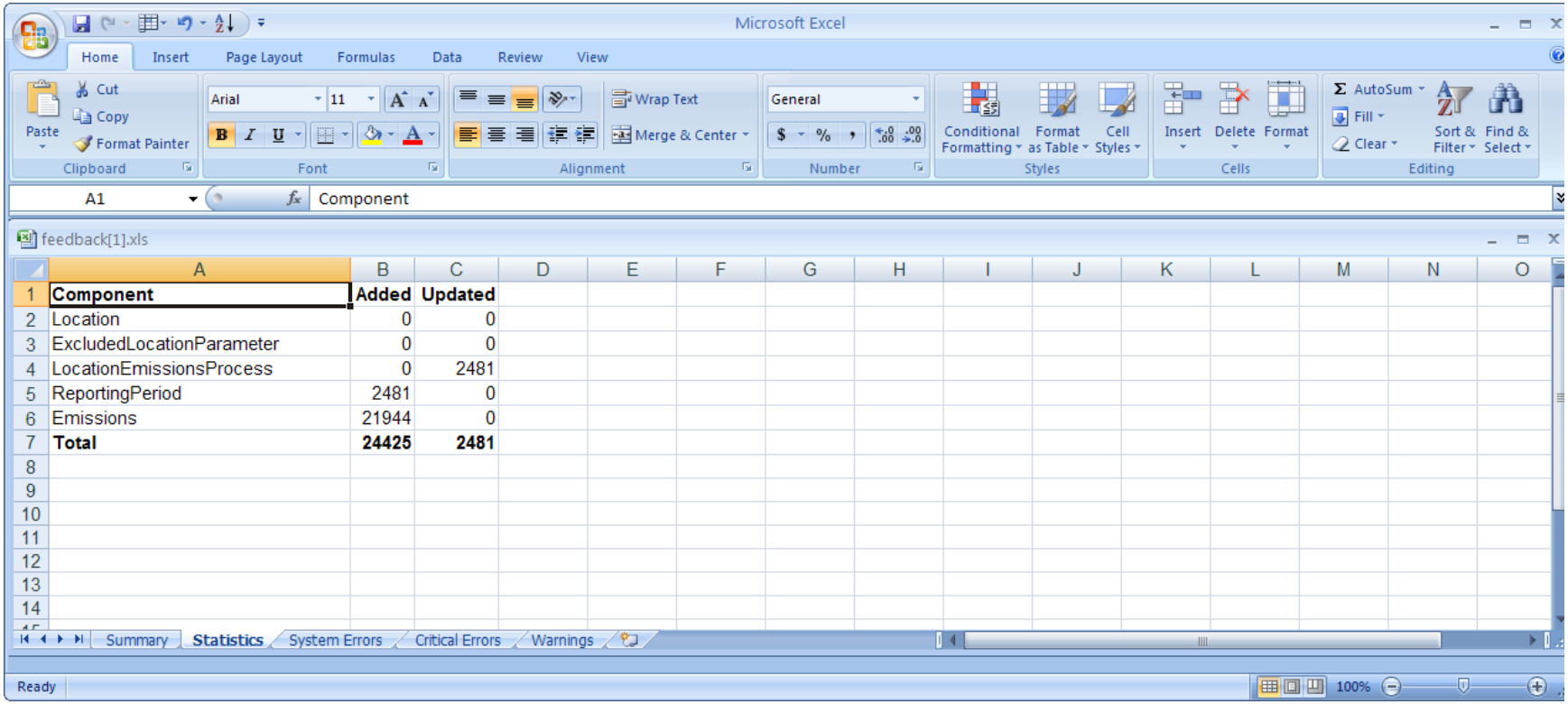
- The most important page of your feedback report
- All critical errors must be resolved prior to submitting to Production

Feedback



Submitter ID	Submission Date	Submission Status	CDX Submission ID	Submitted to	Data Category	Total System Errors	Total Critical Errors	Total Warnings	Geopoli Code
ldriver	2012-02-03 12:34 PM	COMPLETED	_a12d222b-28f0-4a49-b288-7737d11ce660	PRODUCTION	Onroad	0	0	0	

Feedback

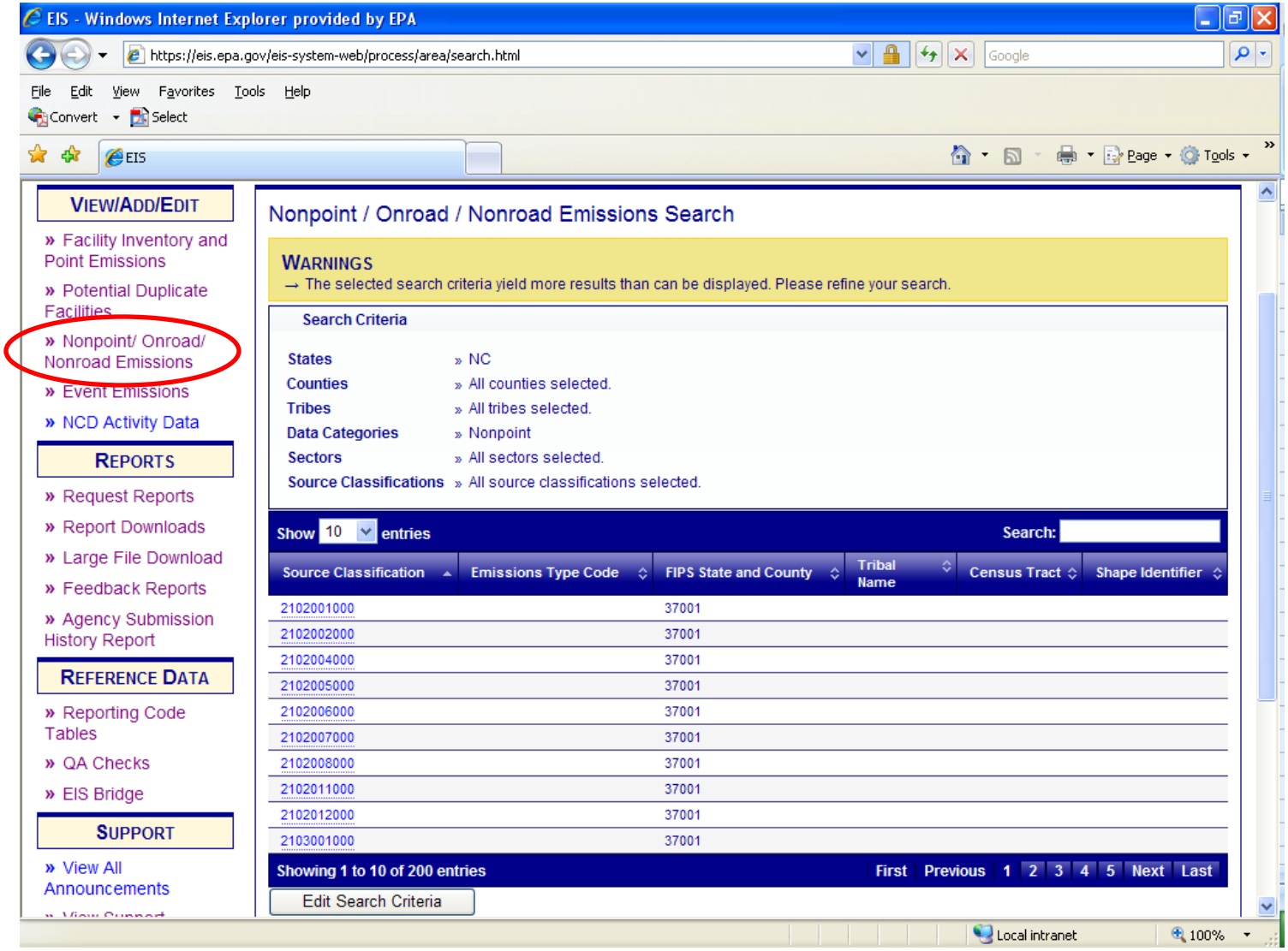


	A	B	C
1	**Component**	**Added**	**Updated**
2	Location	0	0
3	ExcludedLocationParameter	0	0
4	LocationEmissionsProcess	0	2481
5	ReportingPeriod	2481	0
6	Emissions	21944	0
7	**Total**	**24425**	**2481**

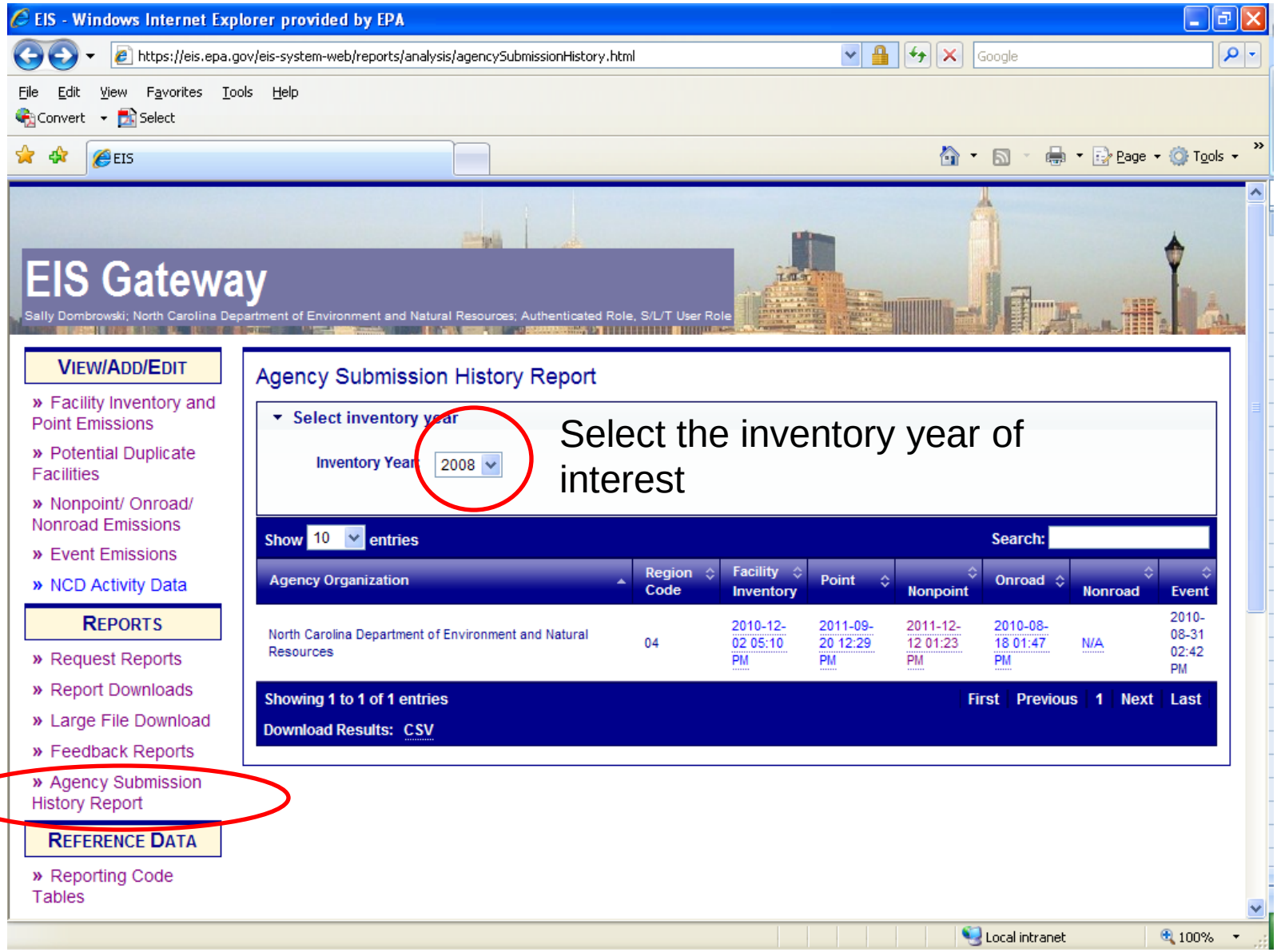
When will my data show up in EIS?

- Onroad data on the Gateway is available immediately
- Reports available the next day

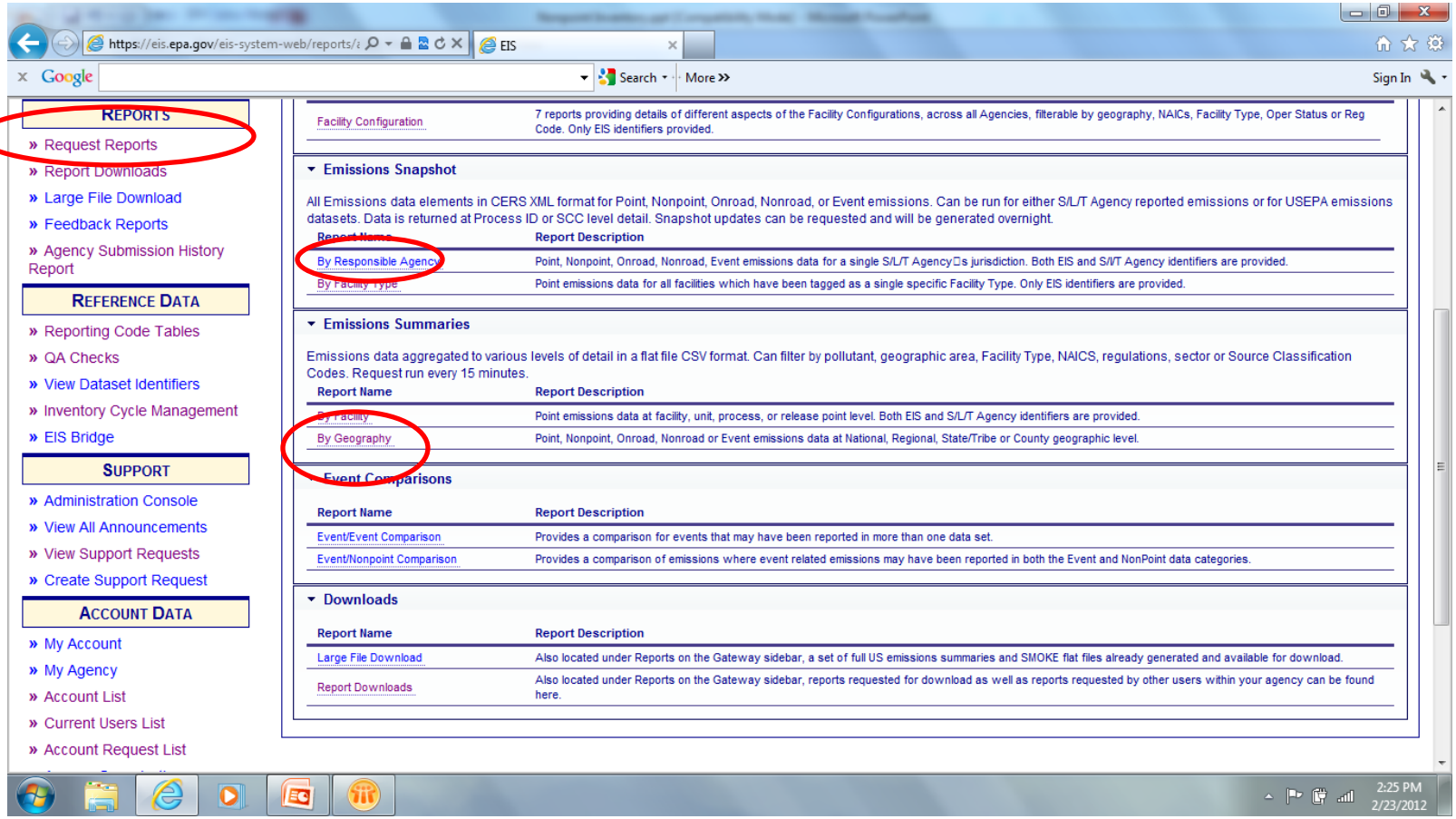
Nonpoint/Onroad/Nonroad Emissions



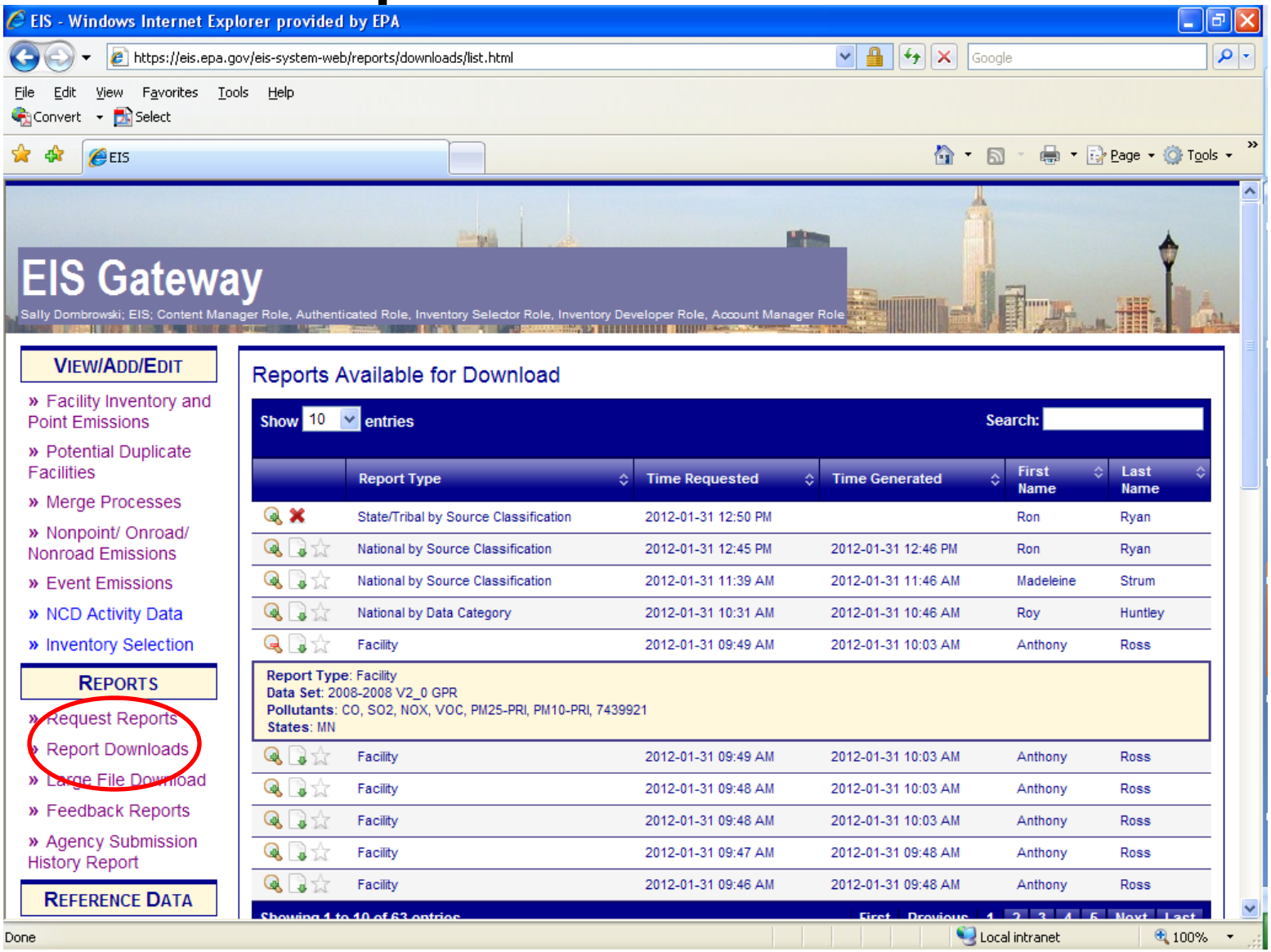
Agency Submission History Report



How do I get data out of EIS?



Report Downloads



How does EPA Check Your Data?

- Again, inputs are strongly preferred. We have QA to fix errors in advance of running MOVES
- Submitted emissions are compared to EPA's for pollutants covered, disagreement between CAP/HAP, anomalous emis type/pol combinations, SCC coverage, etc.

Common Problems

- Overwriting previous submittals. Several submitters in trying to update/correct emissions values, submitted only one pollutant which overwrote previous submittal which contained many pollutants
- Poor use of emission type. For example, all emissions as evap does not make sense.
- Bad emis type/pollutant combinations (e.g., evap pm)

Contacts

- Submittal Issues

  -Sally Dombrowski dombrowski.sally@epa.gov; 919-541-3269
- Inventory Issues
  - Laurel Driver – Mobile Sources

  driver.laurel@epa.gov, 919-541-2859
- MOVES Issues
  - mobile@epa.gov