E2 Reporting System

User Guide and Test Case Training Scenarios: Entering Data into the e2 System

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I. Introduction

A. Electronic Reporting and the e2 Reporting System:

The e2 Reporting System is a Web and XML-based information system that allows wastewater facilities to electronically send Discharge Monitoring Reports (DMRs) and Sanitary Sewer Overflow (SSO) reports to ADEM. This system is designed to provide an alternative to submitting hand-written or paper-based Reports that is faster, more efficient, and less burdensome for both the regulated facilities and the Department. As a fully operational electronic reporting system, all of the necessary legal, security, and electronic signature functionalities have been included for this system to serve as a completely paperless reporting system.

B. e2 Reporting System Goals and Benefits:

There are a number of beneficial goals that have been considered and which have guided the development of the e2 Reporting System. Among them are:

- Support online availability of up-to-date DMR reporting requirements and tracking status of submitted DMRs and SSO Reports.
- Improve the accuracy of compliance data by eliminating potential errors that would otherwise be introduced through manual data entry.
- Improve the security of Report submissions from wastewater facilities.
- Reduce the wastewater discharge facility's compliance costs by offering a streamlined reporting method using readily available computer tools.
- Save ADEM administration and compliance costs by reducing, and eventually better utilizing resources required for managing paper-based DMR and SSO reports.
- Improve the overall effectiveness of wastewater discharge programs with faster responses for data analyses, compliance assessment, enforcement support, and decision-making.

C. Overview of the e2 Reporting System:

The e2 Reporting System is a Web-based application accessible to the participating wastewater facilities via the Internet. The system will serve as an electronic file cabinet to manage reporting requirements provided by ADEM, and to receive / store reports submitted by wastewater facilities.

Wastewater facility access privileges are administrated through the use of a PIN, username, and password. All Report submissions are verified via PIN authentication with software security to ensure that the content of the data is original, truthful, legitimate, and unaltered. A complete chain-of-custody of all records will be maintained in the e2 server.

The system makes available up-to-date reporting requirements from ADEM's centralized data system, allowing wastewater facilities to submit original or revised Reports, and allows for reviewing previously submitted reports on-line.

Reports received at the Server are uploaded to the Data Exchange System for use by ADEM to support compliance, permitting, and environmental planning programs.

D. Minimum System Requirements

Wastewater facilities will need to have the ability to access the Department's e2 Reporting System web site through the Internet. Typically, such access is available either through a dedicated connection through the wastewater facility's local area network or through a connection to an Internet Service Provider.

In addition to the Internet connection, the wastewater facility will need an Internet browser program. The e2 application is verified to work with Microsoft Internet Explorer Version 6.0 or greater, which can be downloaded for free from http://www.microsoft.com/downloads. Facilities may find that other Internet browsers may work but the Department cannot ensure that all of the features of the e2 web system will be available.

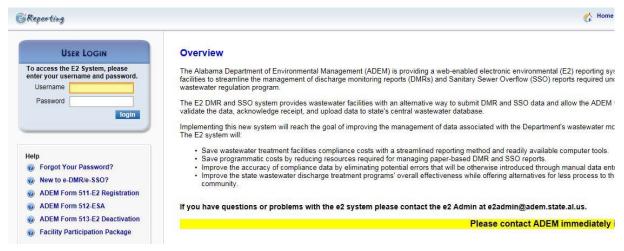
In summary, to use the e2 Reporting System, a facility participant will need:

- A Computer/Laptop
- Internet Access
- Microsoft Internet Explorer, version 6.0 or greater

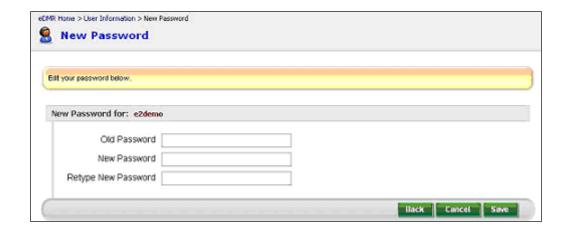
II. Using the e2 Reporting System

A. E2 Website Login

By using an Internet connection, and Internet Explorer version 6.0 or higher, an e2 facility participant logs into the e2 Reporting System website. After entering the appropriate website address, the participant is greeted by the login screen. To enter the System, the facility participant will have to enter a valid user ID and password on the e2 Reporting System Login screen shown below.



When a user logs in using the user ID and password received from ADEM to login for the first time, the system will prompt the user to select a new password as shown below. The new user-defined, case-sensitive password must consist of 8-15 alphanumeric characters (i.e. A-Z, a-z, and 0-9).

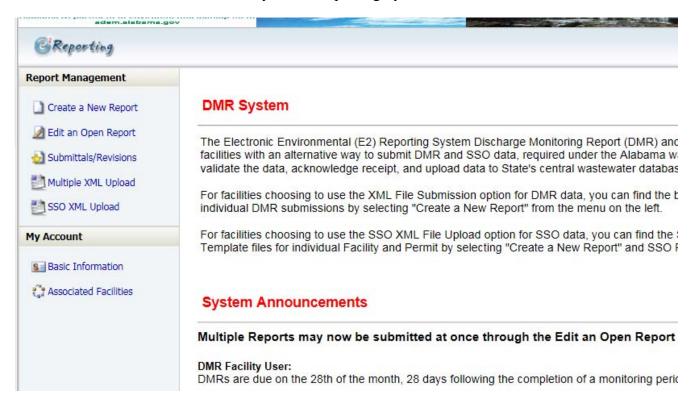


Note that access to the e2 Reporting System will only be allowed after the password has been changed.

If the user is a certifier, the user must change their personal identification number (PIN) upon initial entry into the e2 Reporting System. The new user-defined, case-sensitive PIN must consist of 8-15 alphanumeric characters (i.e. A-Z, a-z, and 0-9).



After a valid user ID and password is entered, the user is brought to the e2 module home page, which provides a brief description of the system, and highlights any e2 related announcements entered by the e2 Reporting System Administrator.



Before proceeding, we will be taking a closer look at the layout of the application as a whole, starting with the status bar.



The status bar is intended to provide quick access to user information, system help, and general system functions.

- The Home icon allows the user to return to the e2 module home page, pictured above.
- The user can access online help by clicking on this icon.
- Conce finished using the e2 Reporting System, the user may log out using this icon. The username of the current logged-in user is also displayed in parenthesis.

To continue on with the layout of the application, the function bar is located in the frame to the left of the main area of the screen. Each functional area is highlighted below.

Under Report Management are the following topics:

- The Create a New Report icon leads to the heart of the e2 Reporting System. Up-to-date reporting requirements and SSO Event Requirements can be viewed, printed, and downloaded here. Also, web forms that look very similar to the paper forms can be used to enter data. Much of this document will focus on this functional area.
- By clicking on the Edit an Open Report icon, a user can make changes to or delete a report that is currently in progress of being edited, but has not yet been certified and submitted to ADEM.

• Submittals/Revisions Reports that have been submitted to ADEM can be viewed and downloaded by clicking on Submittals/Revision. Submissions can be viewed and searched by submission ID, facility, permit, and date.

Under My Account are the following topics:

• Basic Information The user's general account information can be seen by clicking on Basic Information.

• Facility Association Facility Information functions, such as viewing the facilities that the user is associated with, the user's role in reference to that facility, and additional reporting requirements for the facility, are available by clicking on this icon.

B. Creating and Submitting Reports

The e2 Reporting System provides three primary methods to allow facilities to submit their Daily DMRs, Summary DMRs and SSO Event Reports. These methods are:

 Online data entry (eDMR and eSSO): An online Report Wizard will guide the user through entering their DMR results and SSO Event Reports online through a series of Web pages.

(This option is ideal for facilities that currently do not use a spreadsheet or database program to store or track their DMR results and SSO Event Data and can therefore use the e2 application to directly enter their data.)

• Copy and Paste Using Excel Template (eDMR only): The user can download a blank Excel file from the e-2 system that contains the parameters that the facility must report. The facility can then use this spreadsheet to enter in their DMR results while being disconnected from the Internet. Then, when the user is ready to submit to the ADEM, he or she can copy the data from the Excel file and paste this information into the Web form.

(This option is ideal for facilities that currently use a spreadsheet program such as Microsoft Excel to store or track their DMR results. Using the Copy and Paste approach allows the facility to avoid needing to "double enter" their DMR results.)

• XML File Upload (eDMR and eSSO): The user can download a blank XML file from the e2 system that contains the data that the facility must report. The facility can then use this blank XML template file to enter in their DMR results and SSO Event details while being disconnected from the Internet. Then, when the user is

ready to submit to the Department, he or she can upload the XML file including DMR results directly.

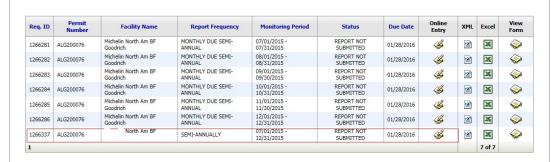
(This option is ideal for facilities that currently have a comprehensive system to track their DMR results and SSO Events and have the IT resources to create a converter that converts their results into the electronic XML format required by the State.)

III. eDMR Instructions

A. Step 1: Create a New Report

1) Click the Create a Report Management New Report link **DMR System** Create a New Report Edit an Open Report The Electronic Environmental (E2) Report facilities with an alternative way to submit Submittals/Revisions validate the data, acknowledge receipt, ar Multiple XML Upload For facilities choosing to use the XML File SSO XML Upload individual DMR submissions by selecting For facilities choosing to use the SSO XM My Account Template files for individual Facility and P Basic Information Associated Facilities 2) Search for the report you want to enter. If you need to enter data for a semi-**Create a New Report** annual report for the last half of the year, the report due To field o continue to work on an unfinished report, click the Edit icon shown in the first column. To delete an unfinished report, click the Delete icon in the second column. Click the View Report icon to preview a lank DMR report form. must include1/28/2016 for Report Type Summary DMR ~ this example. **~** Report Frequency Click Search. Facility Permit Number ALG200076 Monitoring Start Date From <u>то</u> Report Due Date From 1/1/2016 **III** Export Report List

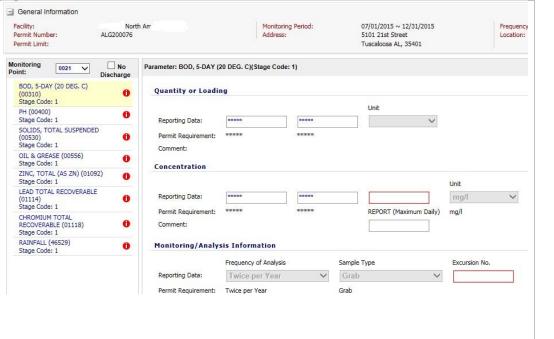
 Click On-line entry for the report for which you need to enter data.

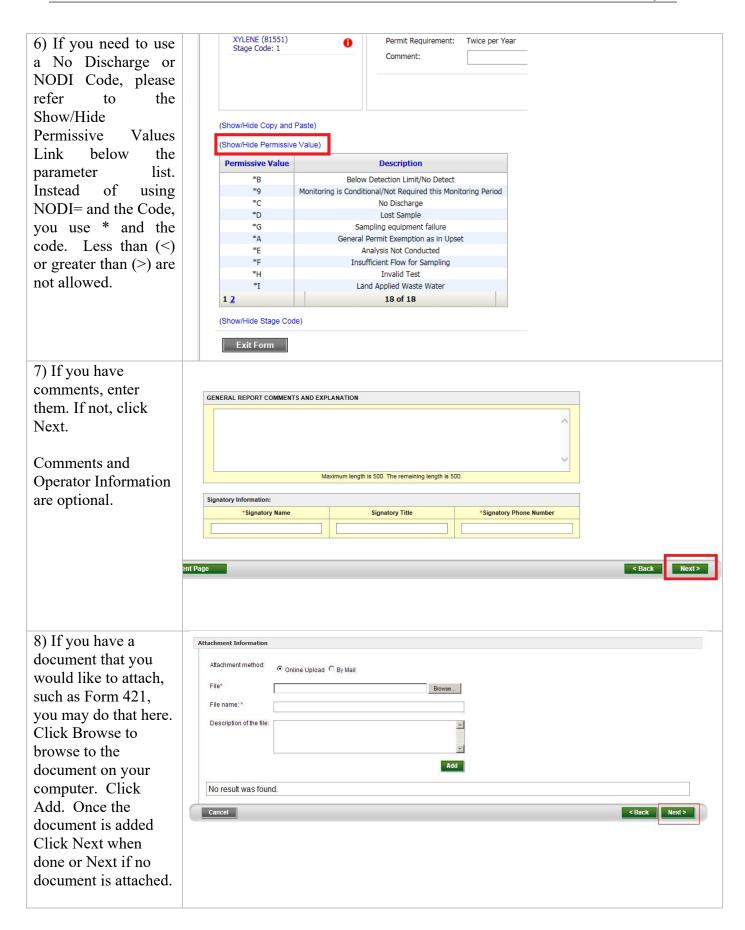


4) To manually enter enter data select the Online Entry Form button. Then click Continue.



5) Enter data into the red rectangles, including the excursion number. The excursion number is number of times a limit is exceeded for that parameter during the monitoring period. Click Save Change. When done entering data click the Next button. If you have more than one monitoring point, click on the drop down box to enter data for the other monitoring points. If you have No Discharge, Click the 'No Discharge' check box.

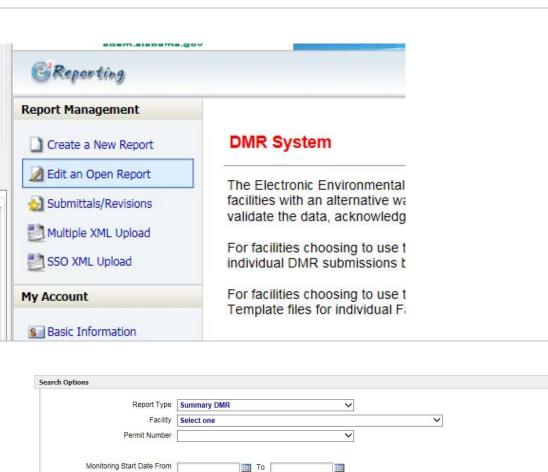




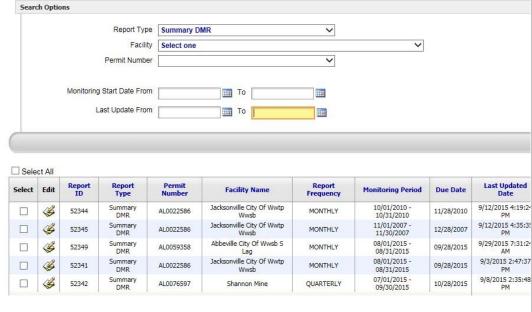


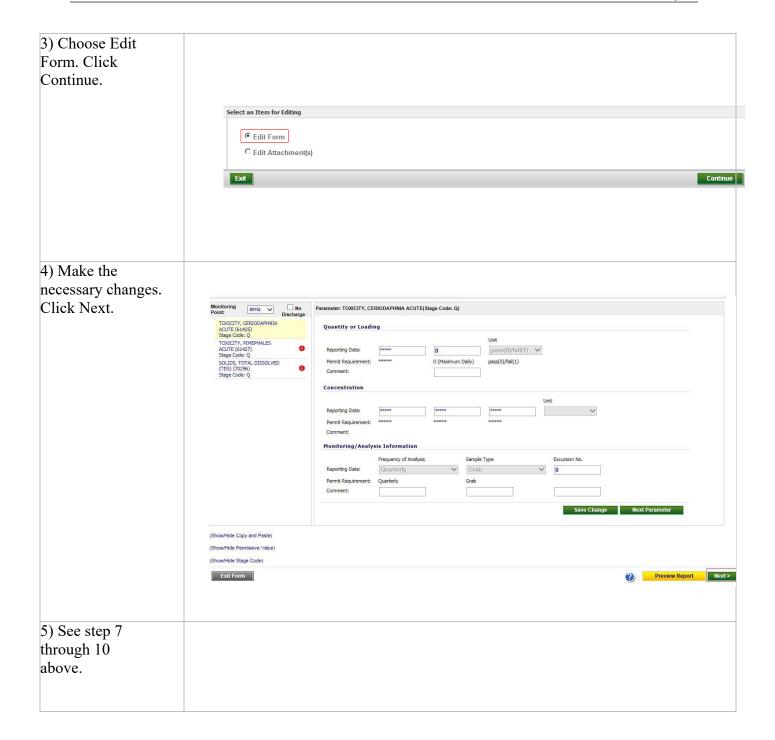
B. Step 2: Edit an Open Report

1) If you have started a report and not submitted it, you may Edit it by clicking Edit an Open Report.

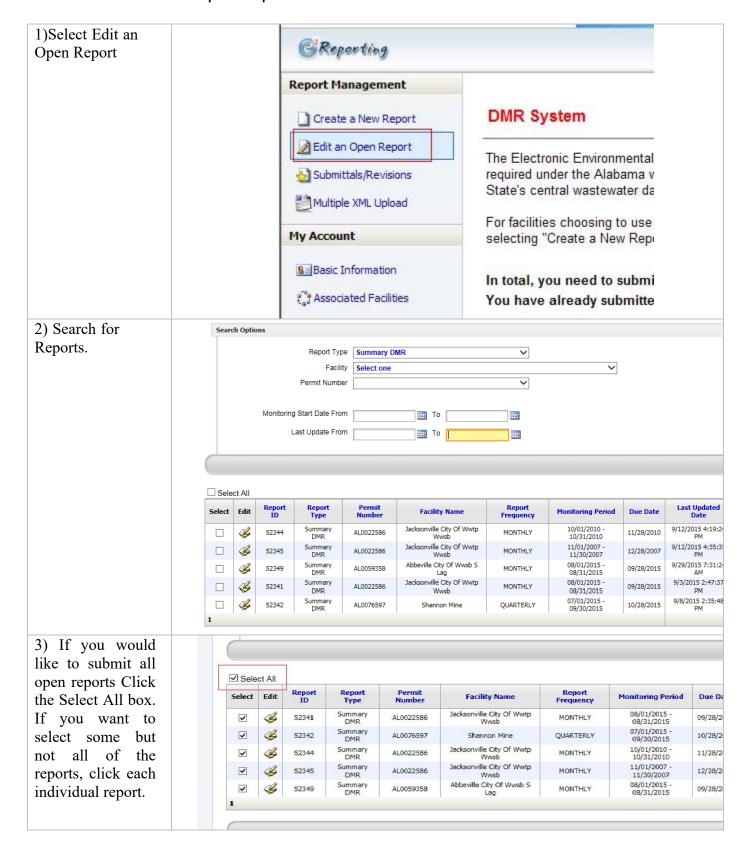


2) Search for the report you want to edit.



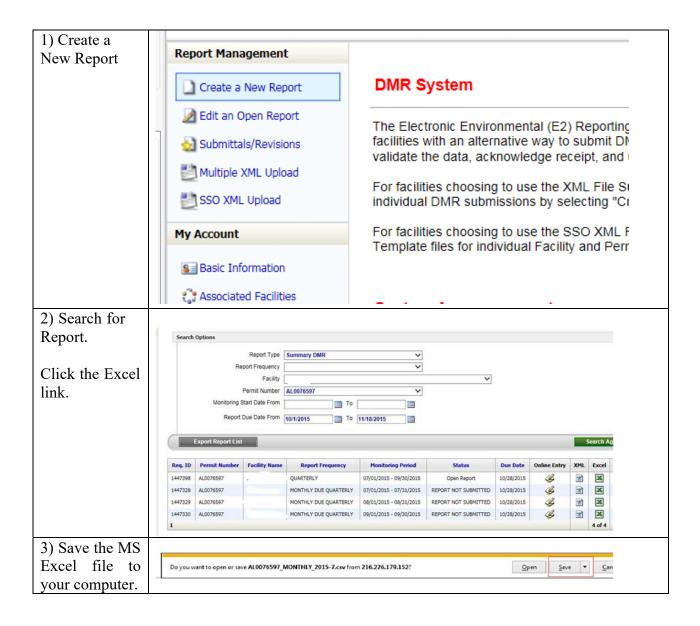


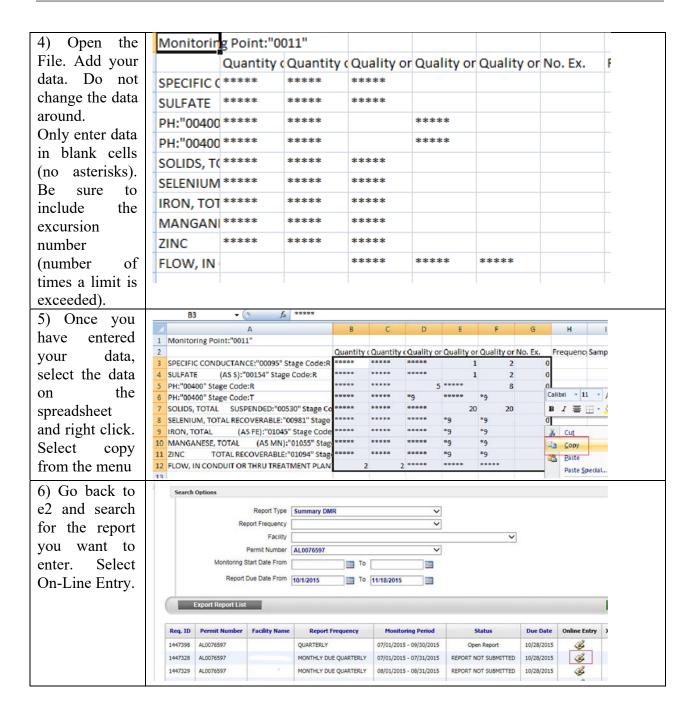
C. Select Multiple Reports to Submit/Delete:

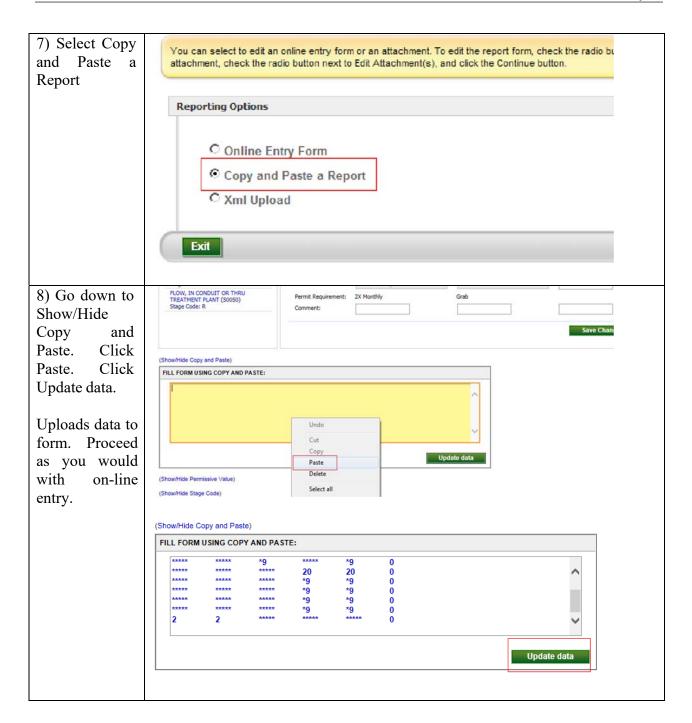




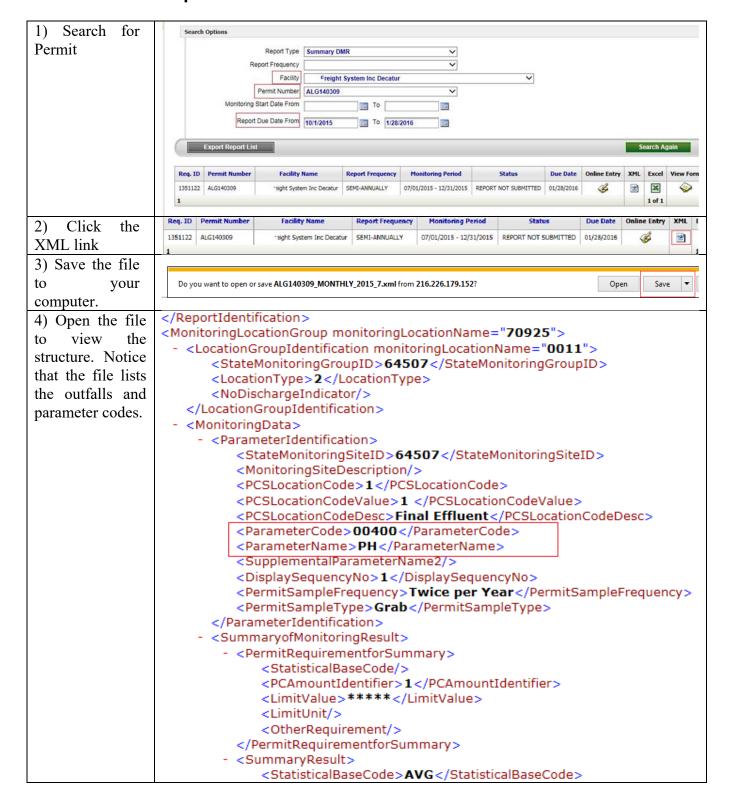
D. Copy and Paste from MS Excel Spreadsheet

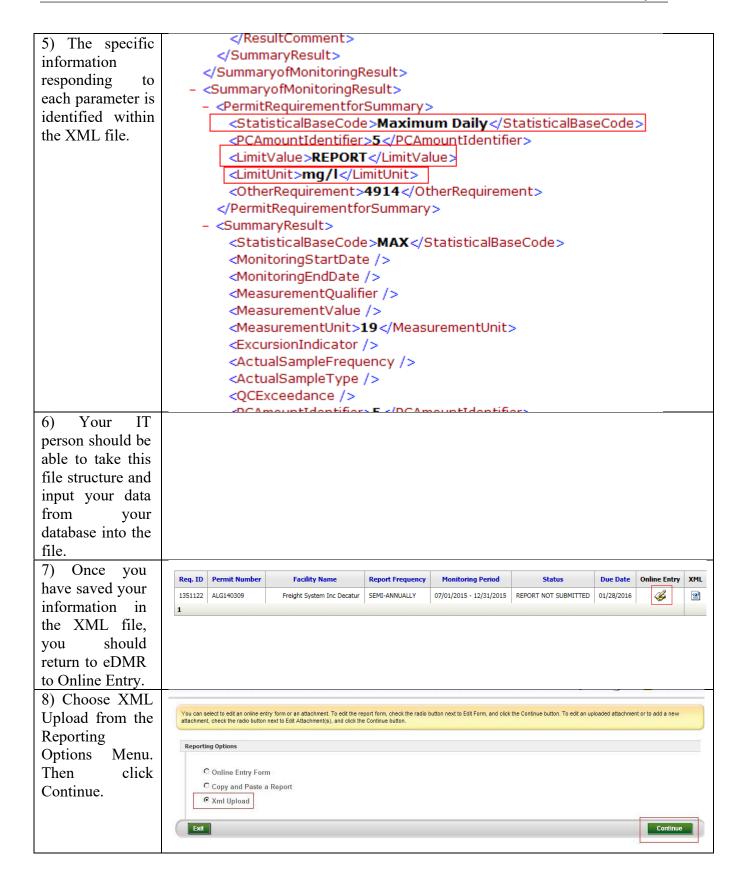


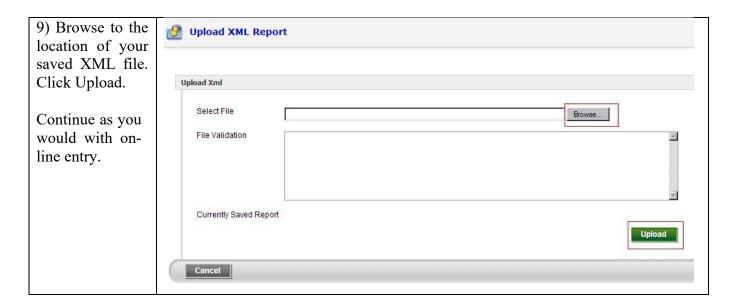




E. XML File Upload

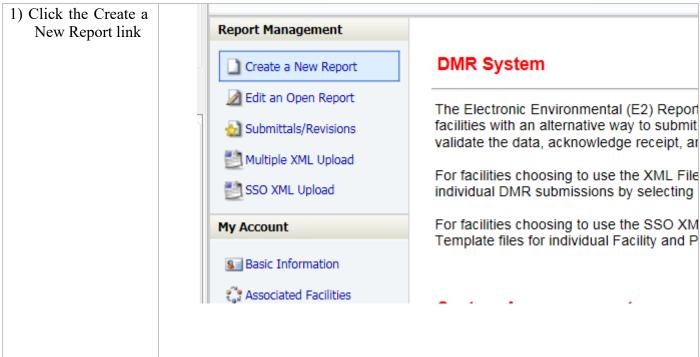


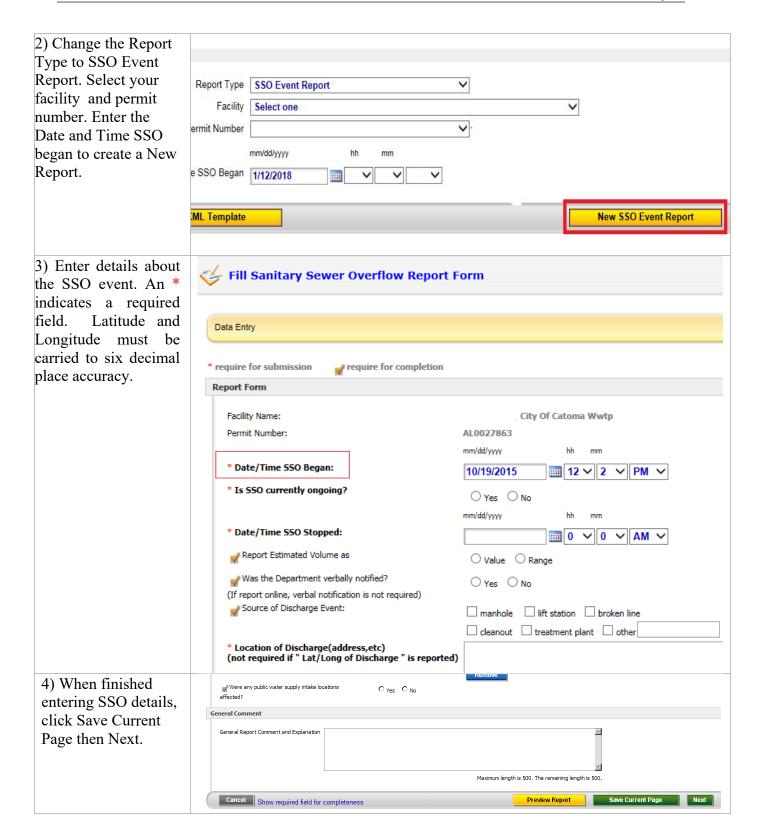




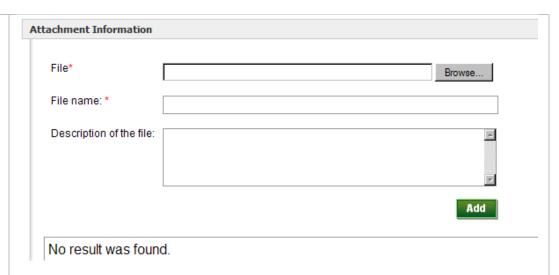
IV. Sanitary Sewer Overflow (SSO) Reporting

A. Create an SSO Report through Manual Entry





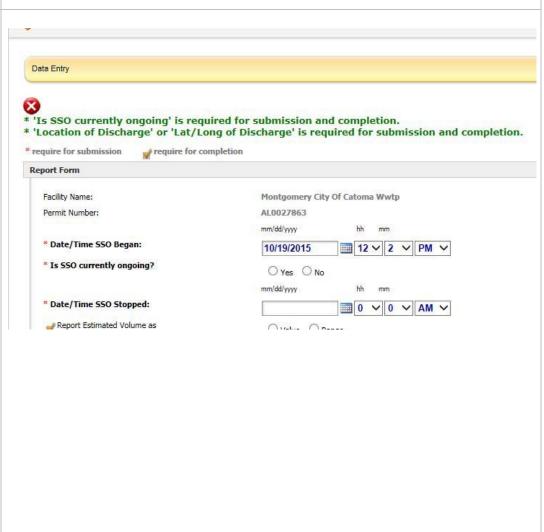
5) If you have a document that you would like to attach you may do that here. Click **Browse** browse the to document on your Click computer. Add. Once the document is added Click Next when done Next if no document is attached.

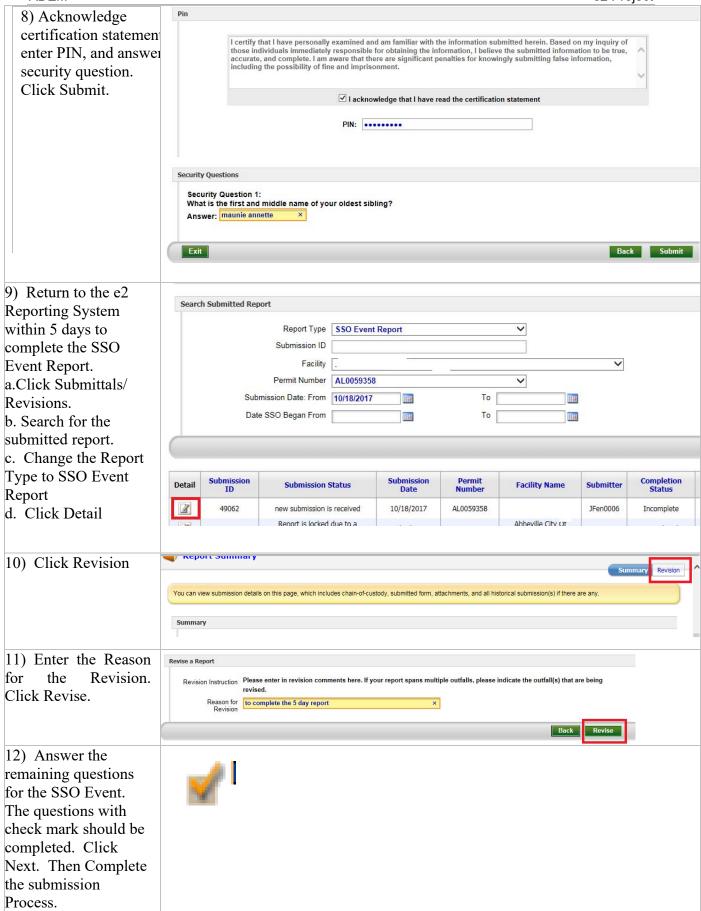


6) Review, correct errors, click Back if report has errors or Next if done.

A report may be submitted if it is incomplete if all of the required fields (Date and Time SSO Began, Is it Ongoing, and Lat/Long) for the 24 hour notice have been completed

7. Complete the submission process.





13) Once the SSO Event Report is e2 submitted an receipt appears and receive you confirmation email.

Receipt



E2 Receipt

Here is your report submission receipt. Click here for a printer friendly version.

Submission ID: 48948

Submitted on 10/19/2015 2:00:13 PM, at 10.4.0.5

Submitted by: Janet Edwards

Montgomery City Of Catoma Wwtp

1400 Coliseum Blvd Montgomery, AL 36110 334-279-3049

ifenn@adem.state.al.us

Report Detail

SSO Event Report

Facility Name: Montgomery City Of Catoma Wwtp

Permit Number: AL0027863

Date/Time SSO Began: 10/19/2015 12:02:00 PM Date/Time SSO Stopped: 10/19/2015 1:00:00 PM

Attachment Detail

Online Attachments

This report is incomplete. Please revise and submit a complete report as soon as possible.

From: e2admin@adem.state.al.us

To: Edwards, Janet

Cc:

SSO Report Received Email Subject:

E-SSO System Message: This email is sent as confirmation that Submission 48948 The details of your submission and report sender are as follows:

Facility Name: Montgomery City Of Catoma Wwtp

Submission ID: 48948 First Name: Janet Last Name: Edwards

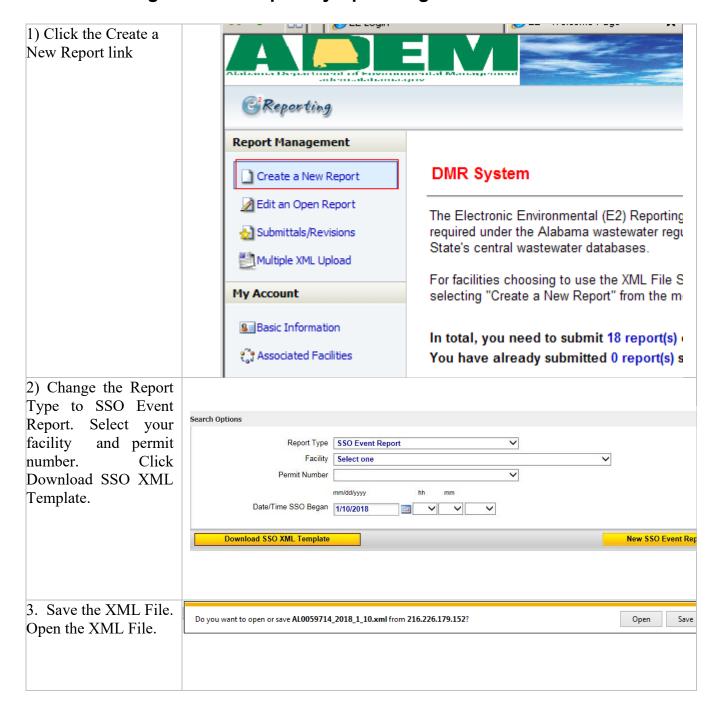
Submission Status: new submission is received

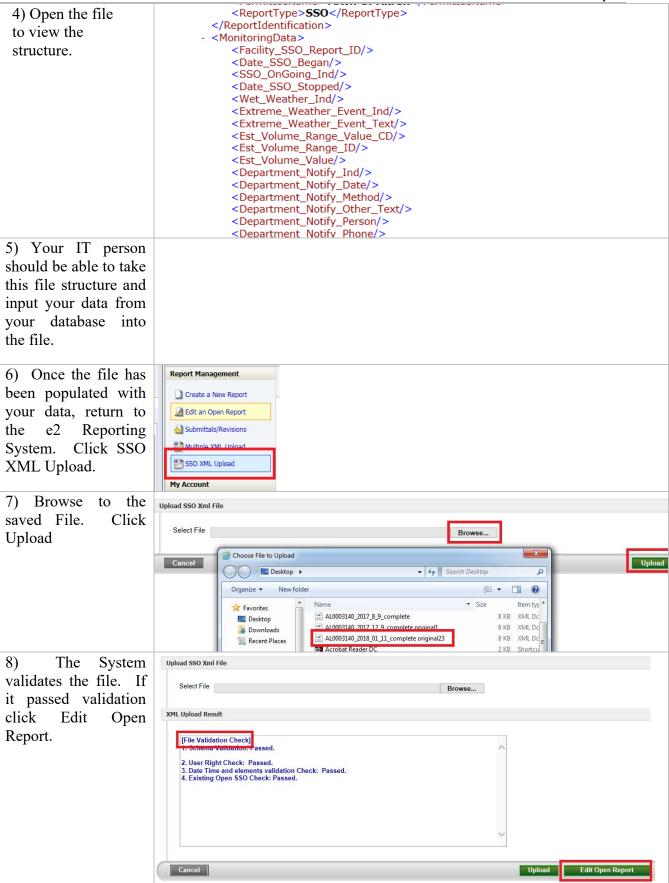
Location of Discharge:

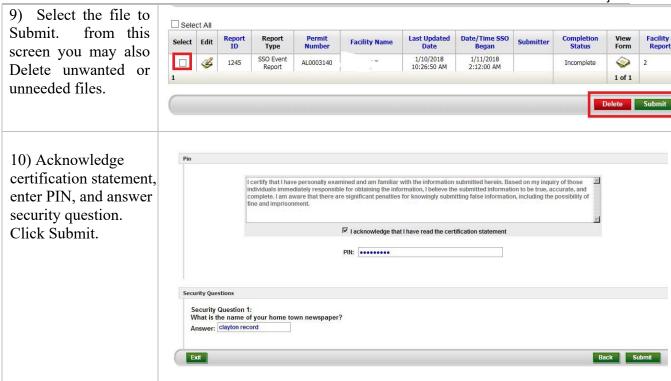
Latitude of Discharge: 32.6000 Longitude of Discharge: -86.4000 Estimated Volume (in gallons): Estimated Volume (Range): >1,000 gal

You may login to E-SSO System by clicking on the link provided below.

B. Creating an eSSO Report by Uploading an XML File



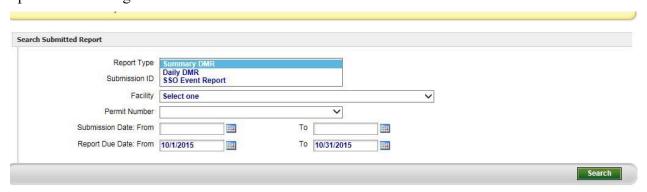




V. Viewing and/or Revising Past Submissions

A. Viewing Past Submissions

After a file has been submitted to the e2 Server, it is accessible for viewing at any time. To view a Report, click on the Submittals/Revisions icon in the left functional area. This will open the following screen.



To view an e2 submission, first select a facility by selecting from the drop-down menu.

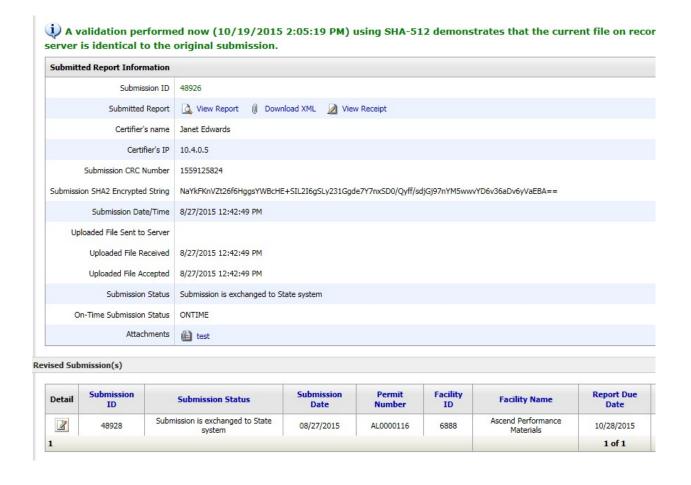
Next select the submission date range. You may enter date search criteria by either typing in the date in MM/DD/YYYY format, or by clicking on the calendar to the right of the date field . Click on the day to select the date and close the Calendar window. Using the Calendar pop-up ensures that the date format is correct to query the e2 database for submissions.

Once the search criterion is entered, click on the Search button, which will display a listing of your past submissions.

The user can use this screen to monitor the current status of the submission. For example, when the Report is first submitted, its status will be "New Submission is Received", but after ADEM has validated the submission, its status will change to either "Exchanged" or "Report is Rejected by Program Staff".



To select a report for viewing, go to the desired submission and click on the Detail icon. This will display a report summary for the submission, bringing the user to the following screen.



The certifier's login name as well as the Internet Protocol (IP) address of the machine from which the submission is made is displayed.

This screen also displays the date that confirmation was sent. Also listed is the Submission Status of the submitted file. The last piece of information is the checksum validation. The checksum validation is a mathematical validation performed to make sure that the file on the server is the same as the one submitted. This prevents tampering with the files, and is another security feature of the e2 Reporting System.

CRC Number, which stands for Cyclic Redundancy Check, is used to track the changes of the original document or XML file submitted to the e2 Reporting System. In the e2 Reporting System, once the user submits a report, the system will calculate the CRC number, and the user can use this to confirm that the submission file has not been altered by the system in any way.

You can view the submission by clicking on the View Report icon Wiew Report

MAILING ADDRESS: 575 Maryvil Saint Louis, ASCENDER' ASCENDER LOCATION: 1050 Chems Decatur, AL	MO63141 ormance Materials trand Ave	MONITORIN POINT: Monitoring Pe	G 004Q riod: <u>2015-07-01</u> To: <u>2015-</u>	No. Marie	UNTY: DISCHARGI	E FROM SITE	i	Morg	an		
Parameter		Q	uantity or Loading	Units	Qua	lity or Concent	ration	Units	No. Ex.	Frequency of Analysis	Sample Type
TOXICITY, CERIODAPHNIA S ACUTE	Sample Measurement	Seasurement ***** *****	****	*****	****	****	*****	П			
PARAM CODE: 61425 Stage Code: 1 Final Effluent	Permit Requirement	****	0 Maximum Daily	9A pass(0)/fail(1)	*****	****	****			Quarterly	24-Hr Composite
TOXICITY, PIMEPHALES ACUTE	Sample Measurement	****	*****		8**8*	****	*****				10000
PARAM CODE: 61427 Stage Code: 1 Final Effluent	Permit Requirement	****	0 Maximum Daily	9A pass(0)/fail(1)	*****	****	****			Quarterly	24-Hr Composite
Of Authorized Agent	HEREIN AND BASED ON MY BELIEVE THE SUBMITTED IN	INQUIRY OF THOSE IS SFORMATION IS TRUE	E PERSONALLY EXAMINED AND AM P NDIVIDUALS IMMEDIATELY RESPONS , ACCURATE AND COMPLETE, I AM A IN, INCLUDING THE POSSIBILITY OF F	IBLE FOR OBTAINING TH WARE THAT THERE ARE:	E INFORMATION. SIGNIFICANT	Officer	e of Principal Ex Or Authorized			Telephone No	Date (MM/DD/YY

The Form displays the submitted XML in a format that is very similar to a completed paper form. The form at this point is considered a completed discharge monitoring report, since the permit limits and parameters are listed with their corresponding actual measured values.

The readable format is accomplished by using a style sheet. This type of style sheet is used to display XML, the language adopted to communicate between environmental facilities and agencies because it is independent of platform. In order to understand any type of message, common definitions and rules must be adopted and enforced, which is where the XML Schema specific to discharge monitoring reporting, the e-DMR schema, comes into play.

To view the XML report click on the Download XML icon Download XML icon Download XML. This report allows you to take a peek behind the scenes at the data being displayed.

```
<?xml version="1.0" encoding="UTF-8" ?>
- <eDMR xmlns:xsi="http://www.w3.org/2001/XML8chema-instance"</p>
   xsi:noNamespaceSchemaLocation="../../CONFIG/SCHEMA/DMR/V1/EDMR_E-DMR_V1.XSD">
     <SchemaIdentification>e-DMR Schema version 1.0</SchemaIdentification>
    <SchemaDescription>e-DMR Work Group Schema version 1.0</SchemaDescription>
    <SchemaPurpose>Electronic Discharge Monitoring Report submissions
     <SchemaVersion>1</SchemaVersion>
     <SchemaCreateBy>e-DMR XML Schema Work Group</SchemaCreateBy>
    <SchemaCreateDate>2002-02-28</SchemaCreateDate>
    <SchemaLastUpdateBy>e-DMR XML Schema Work Group</SchemaLastUpdateBy>
    <SchemaLastUpdateDate>2002-02-28</SchemaLastUpdateDate>
     <SchemaContactInformation>leopard.matthew@epa.gov, and
      Edmr_support@enfotech.com</SchemaContactInformation>
   </MetaData>

    <Receiver>

    <AgencyName>Alaska State Department of Environmental Conservation</AgencyName>
    <ReceivercontactName>Division of Air and Water Quality</ReceivercontactName>
    <ReceivercontactTitle />
   - <ReceiverMailAddress>
      <MailingAddressText>555 Cordova Street</MailingAddressText>
      <SupplementalAddressText />
      <MailingAddressCityName>Anchorage</MailingAddressCityName>
      <MailingAddressStateUSPSCode>AK</MailingAddressStateUSPSCode>
      <MailingAddressStateName>Alaska</MailingAddressStateName>
      <MailingAddressCountryName>USA</MailingAddressCountryName>
      <MailingAddressZIPCode>99501</MailingAddressZIPCode>
     </ReceiverMailAddress>
   </Receiver>
  - <Sender>
    <SenderName />
   - <SenderPhoneFaxEmail>
      <TelephoneNumber />
     </SenderPhoneFaxEmail>
   - <SenderAddress>
      <MailingAddressText />
      <MailingAddressCityName />
      <MailingAddressStateName />
```

By clicking Save, the user can save the XML file locally.

B. Making Report Revisions

After a Report is submitted to ADEM, the facility can use the e2 Reporting System to make revisions to the Report and resubmit. However, when a revision is made, the user must supply a reason for making the revision. Revisions will not be automatically processed by the e2 Reporting System and instead will be manually reviewed by ADEM staff. Because of this, the facility may not receive an indication of Acceptance or Rejection as quickly as with an original submission.

To make a revision to a previously submitted Report, the user can click on the Revision tab of the Report Summary screen, as shown below:



The user will first be prompted to enter in a reason for making the revision. If the Report form spans multiple outfalls, the facility must specify in the comments the outfall(s) that are being modified. Then click the Revise button to continue.



The revision must be submitted using the same submittal method that was used for the original. So for example, if the original DMR was submitted using XML file upload, the revision must also be submitted using XML file upload.

The user can then continue to go through the Reporting process. The reporting process from this point on will be the same as described in Section B.

VI. Frequently Asked Questions

1. Is the < (less than) or > (greater than) symbol allowed in the e2 system?

No, < or > are not allowed. Use *B for below detection. Please see the Show/Hide Permissive Values link to view a list of acceptable No Discharge Indicator Codes.

2. What is the excursion number?

The number of times a limit is exceeded during the monitoring period.

3. How are user accounts modified (revise, delete, add)?

Complete a revised ADEM Form 511. When adding a Certifier, an ADEM Form 512 is also required. Mail the properly signed forms with original wet ink signatures to the Department.

4. The 24 hour SSO hotline was called to report an SSO. Should a paper report be submitted for the five day report?

Yes, you should submit a paper five day report to close out the SSO. If you submit an electronic five day report after you have started a paper report you should submit the paper 5 day report.

- 5. What Internet Browsers support the functions of the e2 Reporting System (my screen does not look right, the calendar does not work, when I click on something it jumps back to the top of the screen)?

 The E2 Reporting application has been tested and certified using Microsoft Internet Explorer.

 Microsoft Edge, Netscape, Google Chrome, Safari and other browsers do not suitably support the full functionality of this application.
- 6. May a user account be modified for usage by another user (my boss retired or is no longer with the company?

Account information such as username, password, and PIN are user specific and may not be shared with other users. Complete a revised ADEM Form 511. When adding a Certifier, an ADEM Form 512 is also required. Mail the properly signed forms with original wet ink signatures to the Department.

- 7. The DMR is blank (no parameters listed). What should I do? Call ADEM.
- 8. What is the Facility SSO Report ID?

It is a system generated value that is populated when an SSO Event Report is revised. Since it is system generated, the user it not required to enter that value in the report.

- 9. Are special characters such as a comma (,) allowed in the E2 Reporting System? No.
- 10. The system lists a report that was previously submitted as 'Report Not Submitted.' Should the report be submitted again?

No, the system generated receipt is proof that the report was submitted. Also, past submittals and receipts may be viewed by clicking on the Submittals/Revisions link.