NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

FOR THE PORTLAND CEMENT MANUFACTURING INDUSTRY SUBPART LLL

Rule Guidance for RTR (*January 2019 version)*

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PURPOSE AND GOALS FOR GUIDANCE

This document is intended for the use of EPA staff, State and Local regulatory agencies and their staff, and industry plant managers. The discussion in this document is intended solely as guidance. It does not impose legally binding requirements on the United States Environmental Protection Agency, state regulators, or the regulated industry. As new issues emerge on Subpart LLL, this guidance will be updated at http://www.epa.gov/airquality/cement/actions.html and a notice will be sent to industry and regulatory contacts for distribution.

POLICY AND TECHNICAL CONTACTS

- Sector Policies and Programs Division, Measurement Policy Group (MPG), Technical Contacts:
    - Theresa Lowe, (919) 541-4786, for questions on Electronic Reporting Tool (ERT) or both Theresa or Gerri Garwood, (919) 541-2406 for technical questions associated with determination of Organic HAP operating limits.
    - Ketan Patel, (919) 541-9736 for questions associated with electronic reporting using the Compliance and Emissions Data Reporting Interface (CEDRI).
- Regulatory Contact: Minerals and Manufacturing Group (MMG), Brian Storey, (919) 541-1103
- Office of Enforcement and Compliance Assurance Contact: Sara Ayres (312) 353-6266

INDIVIDUAL SECTION GUIDANCE

Section 63.1343(b) Table 1 – Dioxin/Furan Factors (updated July 2016)

Table 1 of Section 63.1343(b) lists the emission limits for dioxin/furans. The units of the emission limit are ng/dscm @7% O_2. The TEQ is developed by determining the mass of each congener measured during the performance test, then multiplying each congener by the toxic equivalent factor, or TEF. After the TEQ is developed per congener, they are added to obtain the total TEQ's. The TEF's were re-evaluated in 2005 by the World Health Organization -IPCS using a different scale of magnitude.[1], but Subpart LLL standards were developed based on TEF's developed in 1989 as referenced in the TEQ definition section of the rule (Section 63.1341). Laboratories calculating the TEQ's should be using these 1989 TEFs. They are copied in Appendix A below for the reader's convenience.

Section 63.1346(g)(3) – Startup and Shutdown Work Practices

This section states that all air pollution control devices must be turned on and operating prior to combustion of any fuels. This requirement is intended for air pollution control devices that are

[1] Van den Berg, Martin, et. Al. The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds. Toxicol. Sci. 2006,Oct 93(2): 223-241

used to reduce HAP and is not intended for non-HAP pollutants regulated under other standards (since the subpart LLL standards apply only to HAP emissions). Thus, air pollution control devices for NOx or SOx control, for example, are not covered under this subsection (unless these devices are used to demonstrate compliance with HAP emission standards (*e.g.*, SOx control device used for purposes of parametric monitoring of the HCl standard (see 78 FR 10011/1) (Feb. 13, 2013)).

Section 63.1349(b)(1)(vi) – Testing with mill on and mill off

This section states that for each performance test, one must conduct at least three separate test runs each while the mill is on and three runs while the mill is off. This requirement only applies to kilns with inline raw mills, as inline raw mills are considered part of the kiln and can affect kiln PM emissions. It specifically would not apply to a kiln that does not have an inline raw mill or to a clinker cooler, as in these cases the raw mill is a separate source from the kiln and has no effect on kiln or clinker cooler PM emissions. Note that if the exhaust streams of a kiln with an inline raw mill and a clinker cooler are comingled, then the comingled exhaust stream would need to be tested with raw mill off and raw mill on.

Section 63.1349(b)(6)(v)(C)(1)(i) – Performance Testing Requirements (updated August 30, 2016)

In the recently published Direct Final Rule [EPA–HQ–OAR–2011–0817; FRL–9949–46–OAR], 81 FR 48356 dated July 25, 2016, the EPA issued amended National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry. Specifically, this rulemaking provides a one-year allowance for the use of HCl CPMS instrumentation for continuous monitoring of HCl emissions.

This guidance seeks to clarify procedures for the establishment of a zero point related to setting the site-specific operating limit. Zero point data for extractive instruments should be obtained by flooding the extractive probe with a zero air cylinder gas for a minimum of two minutes and observing a stable instrument response determined at the point where the instrument output changes less than 0.1 ppm in 30 seconds. As listed in provision 63.1349(b)(6)(v)(C)(1)(ii), if you are unable to perform this procedure, you must use a zero output value provided by the manufacturer.

Section 63.1349(b)(7) – Total Organic HAP Testing and Setting the THC Operating Limit

A source with an inline raw mill must do an initial performance test for each of two conditions: one with the raw mill on and one with the raw mill off. Below is a step-by-step example for setting a THC operating limit when a facility has an inline raw mill.

Organic HAP Test. Use Method 320, Method 18, or ASTM D6348-03 or a combination of the methods. Method 320 and ASTM D6348-03 both employ an FTIR instrument that can detect a number of organic HAP simultaneously; however, interferences in some spectra exist such that Method 18 may be necessary to target individual HAP and conduct GC analysis of the sample.

THC CEMS. At the same time as the organic HAP test, a THC CEMS must be in operation. See 63.1349 (b)(7)(ii). The CEMS measurement scale must be capable of reading THC concentrations from zero to a level equivalent to two times your highest THC emissions average determined during the performance test. See 63.1349(b) (7) (v).

Performance testing and THC monitoring must be conducted both while the raw mill is on and while the raw mill is off. See 63.1349 (b)(7) (iii). When testing is complete, you must calculate both a weighted average organic HAP emission test result and a weighted average THC value using the fraction of the time the raw mill is on and the fraction of the time that the raw mill is off. See 63.1349 (b)(7) (iii). The fractions of raw mill on/off are determined based on historical representative averages. The operating limit will be calculated using these weighted averages.

WEIGHTED AVERAGING

Organic HAP Averaging

The following is an example of how to weight the average to determine both whether the facility is in compliance and whether scaling would be allowed.

3-run average organic HAP measurement with mill off = 5.6 ppmvd

3-run average organic HAP measurement with mill on = 7.7 ppmvd

Percent operating time with mill on = 90%

Percent operating time with mill off = 10%

Time weighted organic HAP emission = (y*t)+(x*(1-t))

Where:

y = Average organic HAP value during mill on operations, ppmvd

t = Percentage of operating time with mill on

x = Average organic HAP value during mill off operations, ppmvd

(1-t) = Percentage of operating time with mill off

So in the above example we have: (7.7 * 0.9) + (5.6 * 0.1), therefore the time weighted organic HAP concentration would be (6.93 + 0.56) or 7.49 ppmvd.

THC Continuous Monitoring Averaging

As specified in Section 63.1349(b)(7)(ii), at the same time that you are conducting the performance test for total organic HAP, you must also determine a site-specific THC emissions limit by operating a THC CEMS in accordance with the requirements of §63.1350(j). The duration of the performance test must be at least three hours and the average THC concentration (as calculated from the one-minute averages) during the three-hour test period must be calculated. It is permissible to extend the testing time of the organic HAP performance test beyond three hours if you believe extended testing is required to adequately capture THC variability over time.

You must establish your THC operating limit and determine compliance with it according to paragraphs (b)(7)(vii) through (viii) of Section 63.1349. (Please note the final rule lists it as (a)(7)(vii) through (viii), but that was a typographical error and will be corrected through a technical correction). Note that there are two different procedures to establish the THC limit depending on the measured level of organic HAP. If the measured weighted average organic HAP level is 9 ppmvd or above, you establish the THC operating limit as the weighted average of the raw mill on/off measured THC levels. Continuing with the example stated above,

3-run average organic THC measurement with mill off = 30 ppmvw

3-run average organic THC measurement with mill on = 40 ppmvw

Percent operating time with mill on = 90%

Percent operating time with mill off = 10%

Time weighted organic HAP emission = (y*t)+(x*(1-t))

Where:

y = Average organic THC value during mill on operations, ppmvw

t = Fraction of operating time with mill on

x = Average organic THC value during mill off operations, ppmvw

(1-t) = Percentage of operating time with mill off

So, in the above example, we have: (40 * 0.9) + (30 * 0.1), therefore the time weighted THC operating limit would be (36 + 3) or 39 ppmvw.

If the measured weighted average organic HAP is less than 9 ppmvd, section 63.1349(b)(7)(iv) provides a scaling option for setting the THC site-specific parametric operating limit. The scaling procedure estimates the expected THC emission level that would occur if the measured organic HAP level was exactly 9 ppmvd (versus the 7.49 ppmvd level in the example above).

This is calculated by using the following formula found under 63.1349(b)(7)(vii)(B):

$$T = \left(\frac{9}{Y_1}\right) * X_1$$

Where:

T = the 30-day operating limit for a parametric THC instrument, ppmvw

Y_1 = the average organic HAP concentration from performance testing, ppmvd and

X_1 = the average parametric THC concentration during performance testing, ppmvw

So, in the above example, we have: T = (9/7.49) * 39, therefore T = 47 ppmvw.

PM CPMS scaling

Section 63.1349(b) (1)(i)(A) states: "Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps."

We note that many new CEMs no longer use an analog signal output (such as 4-20 milliamp) but make use of a digital signal output instead. Conversion of a digital signal to analog, then transporting that signal down a stack to an analog display that reads the analog signal, then reconverting that back to a digital signal before sending that signal to the Data Acquisition Handling System, requires the installation of equipment and unnecessary complexity that the EPA did not intend. This guidance is directed at demonstrating the equivalency of each signal output and providing a means of compliance with the rule when a source uses an instrument equipped only with a digital signal output.

It is important to understand that any digital or analog value from an instrument output uses some percentage of the output scale available to the instrument, between 0 and 100% of the output range. Think of this in terms of some fraction of the scale between 0 and 100.

The range of any digital signal from 0 to 100% covers the range of the digital increments available to the signal. This depends on how many "bits" the digital signal is composed of, and the granularity of the signal value increases proportional to the number of bits carried. An eight-

bit digital signal has 2^8, or 256 signal increments; a 12-bit signal as 2^{12} or 4096 signal increments; a 16-bit digital signal as 2^{16} or 65536 signal increments; and so on. In this manner, 50% of a digital scale is represented by a value at half of the digital signal increments.

The range of a 4-20 milliamp signal is just that, from 4 to 20 milliamps; or a range of 16 milliamps between a zero value (4) and full (100%) scale (20). Fifty percent of a 4-20 milliamp signal is represented by a value of 12 milliamps (((20 – 4) / 2) + 4). In this manner a zero to full scale response of a 4 to 20 milliamp signal involves increasing a 4 milliamp reading a total of 16 milliamps until one reaches 20 milliamps. So, a 100% rise in signal on a 4 to 20 milliamp output equates to 100 / 16 or 6.25% of full scale *per milliamp*.

What remains constant about any output signal is that no matter how many increments one is able to divide the signal into, one is always able to determine what percent of output range is indicated by the value of the signal increment itself.

Using this information, it is possible to identify the percent of scale that would be representative of 75% of the emission limit on a digital output system in much the same manner the rule prescribes determination of this number on a 4-20 milliamp signal output.

For example, let's take a digital signal output from a PM CPMS instrument that reads zero when the instrument is not exposed to any particulate matter in the flue gas; this value is equivalent to the instrument zero value in 63.1349(1)(iii)(C) Equation 4, or "z":

$$R = \frac{Y_1}{(X_1 - Z)} \quad \text{(Eq. 4)}$$

Where:

R = The relative lb/ton-clinker per milliamp for your PM CPMS.

Y_1 = The 3-run average lb/ton-clinker PM concentration.

X_1 = The 3-run average milliamp output from your PM CPMS.

z = The milliamp equivalent of your instrument zero determined from (b)(1)(iii)(A).

In this example, the zero bit from a digital signal is equivalent to a 4 milliamp zero signal, with a value of z = 0.

The value of X_1 for this equation would be obtained by monitoring the average digital signal output rather than the average milliamp signal output from the PM CPMS during the PM performance test. For the purposes of this example we set this value at the 1268th signal increment above zero on a 12-bit system (where 4096 increments are possible). This equates to 1268 / 4096 or 30.957% of the instrument scale. Note that this would represent 8.953 milliamps if the instrument had an analog output.

The value of Y_1 in this equation remains the 3-run average lb/ton-clinker PM concentration determined by the compliance test. For the purposes of this example, we will assume that this value was determined to be 0.04 lb/ton-clinker.

To solve for R with a digital signal output in Equation 4 we would use:

R = 0.04 / ((1268) – 0)

Therefore, R = 0.04 / 1268 or

R= 0.00003154574 lb-ton clinker per increment (rather than per milliamp)

Carrying this value of R forward, we can determine our source specific 30-day rolling average operating limit at 75% of the emission limit using the procedures in 63.1349(1)(iii)(D) as follows:

(D) Determine your source-specific, 30-day rolling average operating limit using the lb/ton-clinker per milliamp value from Equation 4 in Equation 5, below. This sets your operating limit at the PM CPMS output value corresponding to 75% of your emission limit.

$$O_1 = z + \frac{0.75\ (L)}{R} \quad \text{(Eq. 5)}$$

This gives us the following:

O_1 = 0 + (0.75 * 0.07 lb/ton clinker) / 0.00003154574 OR

O_1 = 0.0525 / 0.00003154574 OR

O_1 = 1664.25 digital signal increments OR

40.63 % of the instrument scale.

If the instrument used an analog output we could calculate the milliamp value by multiplying 16 (the amount of analog milliamp increments) by the percent of scale above, so 16 * 0.4063 = 6.500 and then we would add 4 (to represent our zero of four milliamps plus the percent scale) which places the 75% operating limit for an analog output signal at 10.5 milliamps on the 4-20 milliamp scale.

75% scaling for PM Performance Test

Note that the intent of Section 63.1349(b)(1)(i) was for the operator to use a weighted average for when the mill is on and the mill is off (as in all mill on/mill off situations). This weighted average would be calculated the same way as the weighted average developed and discussed above under the paragraph, "THC Continuous monitoring averaging." However, note that the units for averaging PM CPMS output are in milliamp, not ppmv.

SO_2 SCALING GUIDANCE

Section 63.1349(b)(6)(iii) Choosing to Monitor SO_2 Emissions as Alternative to Section 63.1349(b)(6)(B)

As noted above, the rule allows use of SO_2 parametric monitoring to demonstrate continuous compliance with the HCl standard. Monitoring of SO_2 using a CEMS and setting an SO_2 operating limit must be done when the mill is on and the mill is off. As in the example above for organic HAP scaling, a weighted average should be calculated. The 75% adjustment however, does not apply for setting an SO_2 operating limit.

In addition, please note that the rule places no restriction on the amount of sorbent injection used as long as the SO_2 limit is met. However, if the SO_2 control device is used intermittently, then an HCl monitor as described in 63.1349(b)(6)(i)(B) would be required, since the rule requires continuous monitoring if the source opts to demonstrate compliance using SO_2 parametric monitoring. See section 63.1350(l).

SEMI-ANNUAL SUMMARY REPORTING OF TEMPERATURE AVERAGES (updated September 2017)

After a new analysis the EPA conducted of the language in Section 63.1354(b)(9)(vi), D/F temperature averages reporting is not required by this provision. Therefore, reporting these averages is not required in CEDRI. Please note however that the requirement to report any exceedance of the D/F temperature limit in the semi-annual report per Section 63.1354(b)(9)(i) is still in force.

For facilities that wish to continue reporting these averages, the guidance on developing the reports will remain in this guidance document as follows:

According to Section 63.1350(g)(4), a source must calculate the rolling three-hour average temperature using the average of 180 successive, one-minute average temperatures. To report these averages, the source would need to report the initial three-hour average derived from these 180 successive one-minute average temperatures. For each hour, the previous 180 successive, one-minute average temperatures should be reported. For instance, at the beginning of each hour of minutes the source would include the previous two hours (or 120 minutes) and the current hour (60 minutes), which totals 180 minutes, and then report those values, so that for each day, there would be 24 discrete values reported. Thus, this translates to a maximum of 4320 values in a six-month report (24/day x 30/month x 6 months).

CEDRI UPDATES (*updated January 2019*)

Section 63.1354(b)(9) – Reporting Requirements

The provisions under this section discuss requirements related to both the semi-annual summary report and performance testing reporting requirements. A screen shot of the reports required to

be electronically submitted into the Compliance and Emissions Data Reporting Interface (CEDRI) is found below.

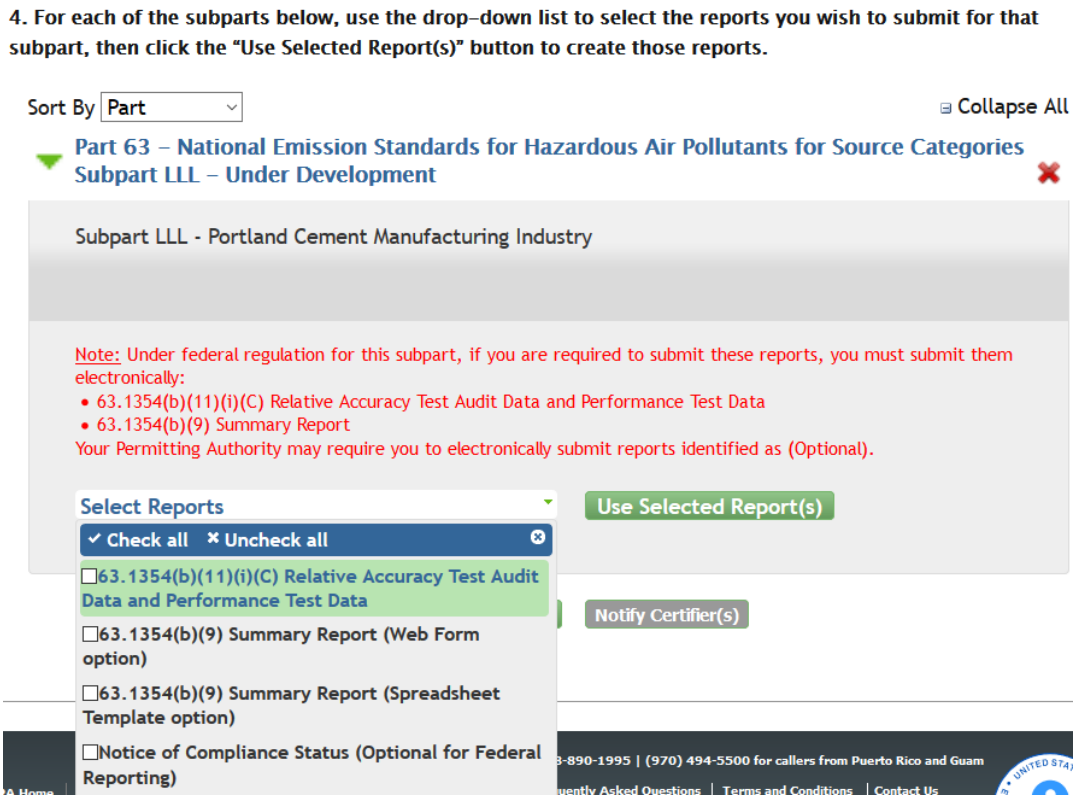

Figure 1. LLL Portland Cement Manufacturing Industry Report Selection dropdown

Summary Report (Section 63.1354(b)(9))

The summary report is available in two formats: 1) Web form option and 2) Spreadsheet Template option. In this help guide, we will walk through filling out the Summary Report using the web form option. The Summary Report submitted semi-annually is entered via the 63.1354(b)(9) Summary Report web form found in CEDRI under the Part 63 subpart LLL Select Reports drop down. This section will cover the following topic areas:

- Accessing the 63.1354(b)(9) Summary Report web form
- Steps to fill out the 63.1354(b)(9) Summary Report web form

Accessing the 63.1354(b)(9) Summary Report web form

1. Navigate to CDX website: https://cdx.epa.gov/.
2. Enter your User ID and Password on the CDX home page.
3. Click on the 'Preparer' or 'Certifier' role link under the Services panel as shown in Figure 2. This will bring you into CEDRI.

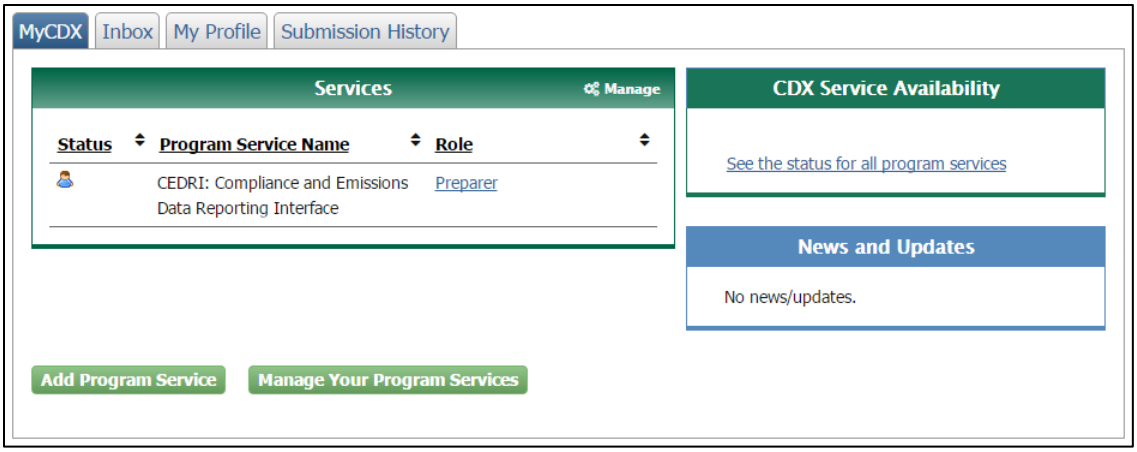

Figure 2. My CDX (Preparer)

4. Once in CEDRI, click on the Create New Submission Package green button and follow each step found on the screen (1 through 4) or CEDRI may automatically take you to Step 1.

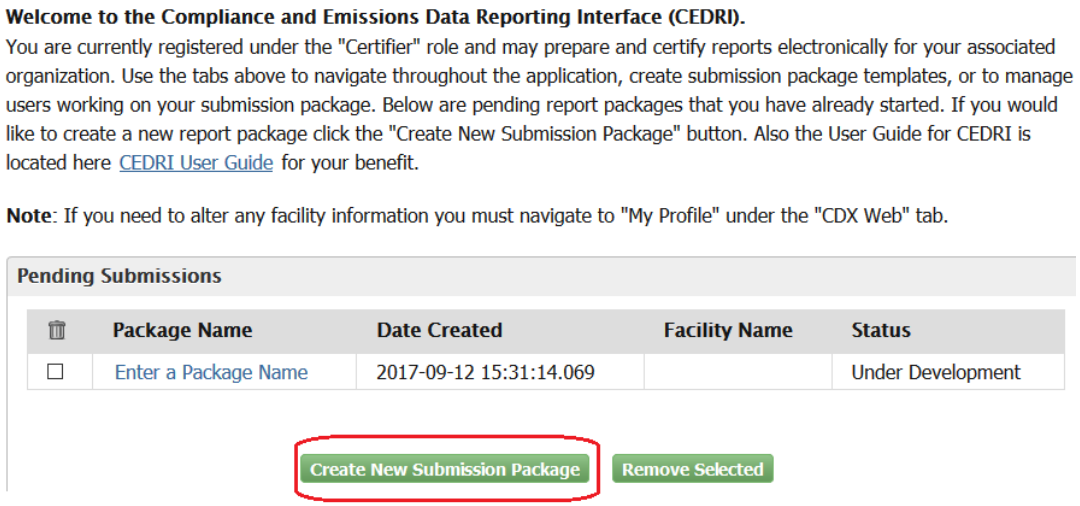

Figure 3. CEDRI home with "Create New Submission Package" button

5. Under Step 1 of the Create/Edit Submission Package, provide a 'Package Name'. For example, 'EPA_Cement_facility X_1_2017_SummaryReport.' Click the To Step 2 button.

Figure 4. Create/Edit Submission Package: Step 1 Provide Package Name

6. Select a facility from the dropdown list in Step 2. Click the To Step 3 button.

   a. Facility should have been added during registration. If drop down is empty or the facility is not in the dropdown, you will need to click on the 'Add a facility' link found next to the dropdown.

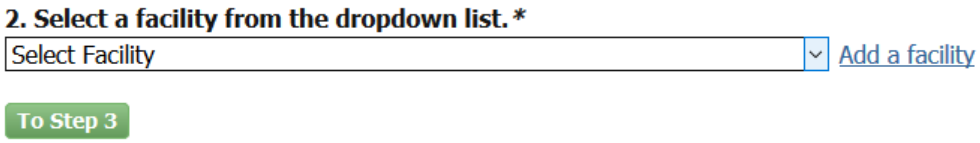

Figure 5a. Create/Edit Submission Package: Step 2 Select Facility

   b. A 'Please Wait' message will appear, followed by a 'Add Facility' filter screen.

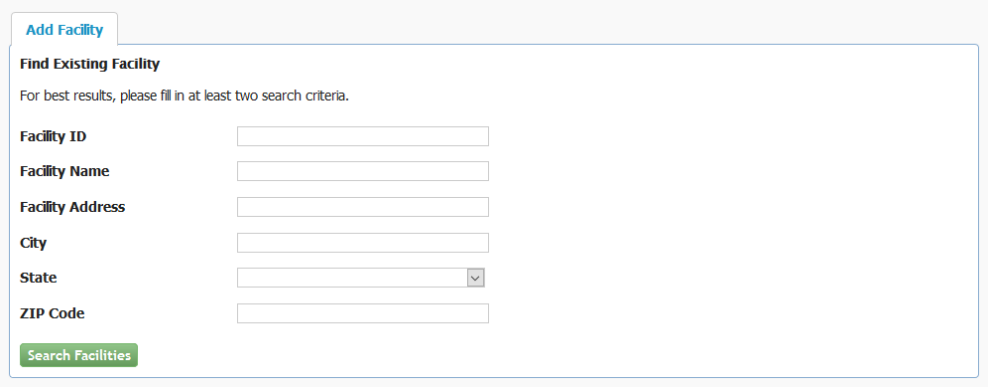

Figure 5b. Create/Edit Submission Package: Step 2 Add a Facility filter

   c. Follow the CDX steps to Add a Facility.

   d. You will need to start back with providing the package name found under Step 1 (#4 above).

7. In Step 3, using the Part 63 subpart dropdown, either use the Filter window and type in 'LLL' or scroll down to 'LLL - Portland Cement Manufacturing Industry' and click the ☑. Click outside of dropdown area, to click on the To Step 4 button to move to the next step.

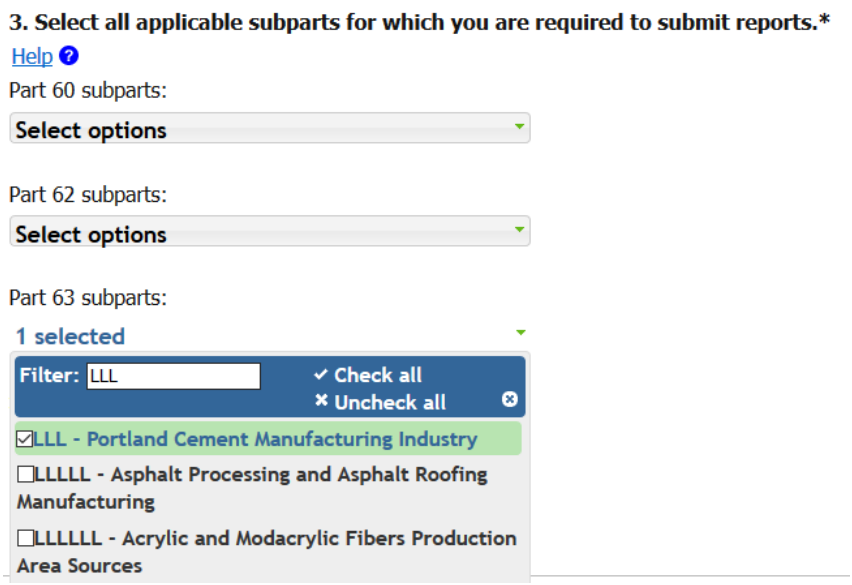

Figure 6. Create/Edit Submission Package: Step 3 Select Applicable Part and Subpart

8. Under the LLL - Portland Cement Manufacturing Industry area, you will find a 'Select Reports' dropdown. In the dropdown, select the '63.1354(b)(9) Summary Report (Web Form option)' by clicking in the ☑, followed by clicking on the Use Selected Report(s) button.

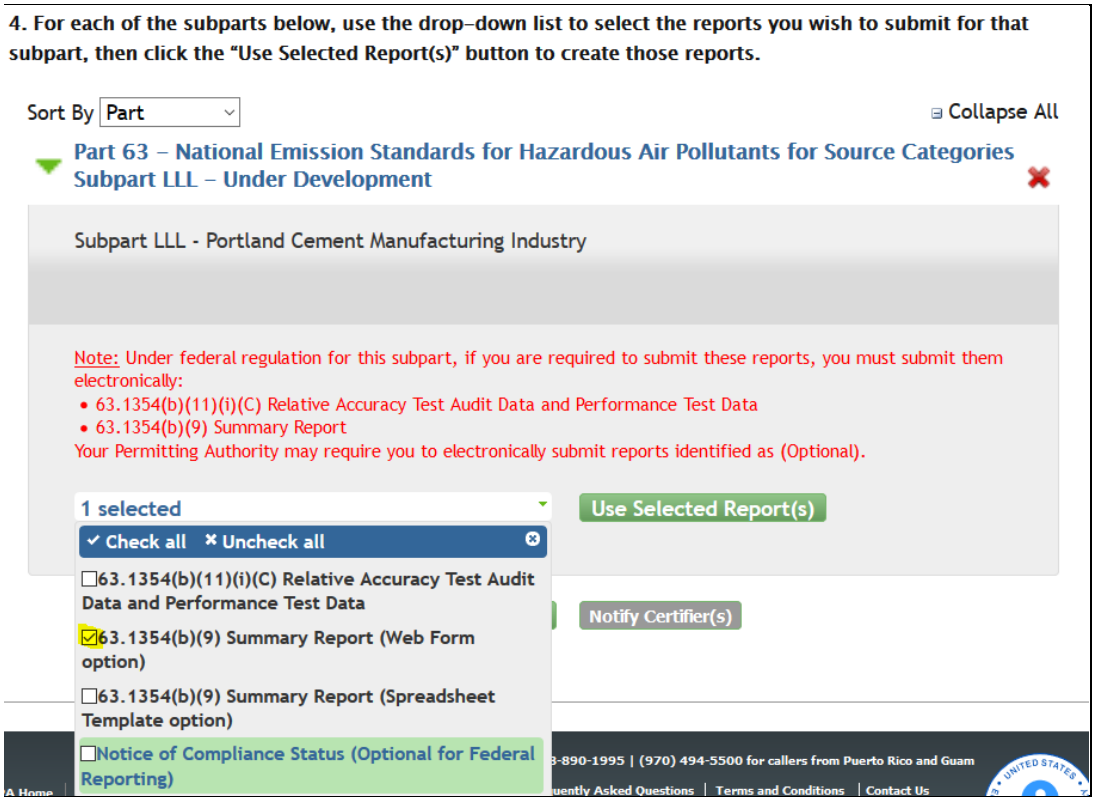

Figure 7. Create/Edit Submission Package: Step 4 Select Reports Dropdown – Select 63.1354(b)(9) Summary Report (Web form option)

9. After the window refreshes, click on the 'Create/Edit Form(s)' link to open the web form. A new pop-up web form will open.

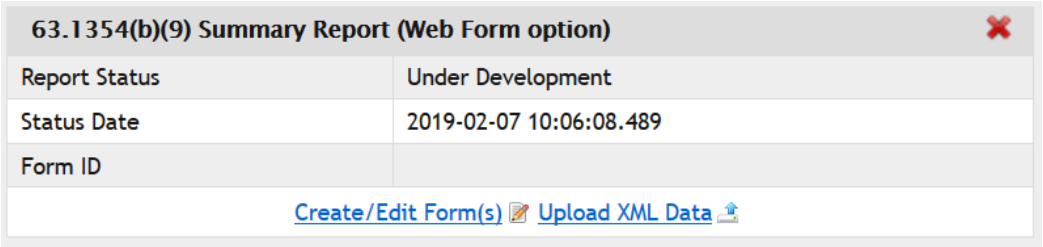

Figure 8. Create/Edit Submission Package: Create/Edit Form(s) Link

Steps to fill out the 63.1354(b)(9) Summary Report web form

1. Read 'Welcome Page and Navigation Information.' Click on the Next Page button to continue.

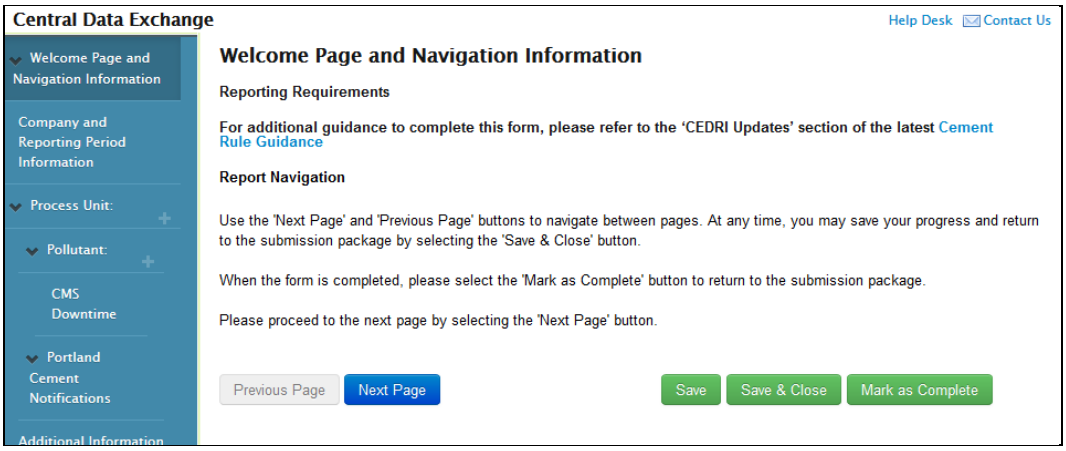

Figure 9. Summary Report web form: Welcome Page and navigation Information

2. Company Information page will appear providing the company information prefilled based on the facility (Company) selected in the earlier step. The Date of the report is also found on the page prefilled. Click on the Next Page button to continue.

> Note: If you wish to edit your Company details, you may save your progress and return to the submission package by selecting the 'Save & Close' button. Your Company details are available within the Submission Package and can be modified under step 2.

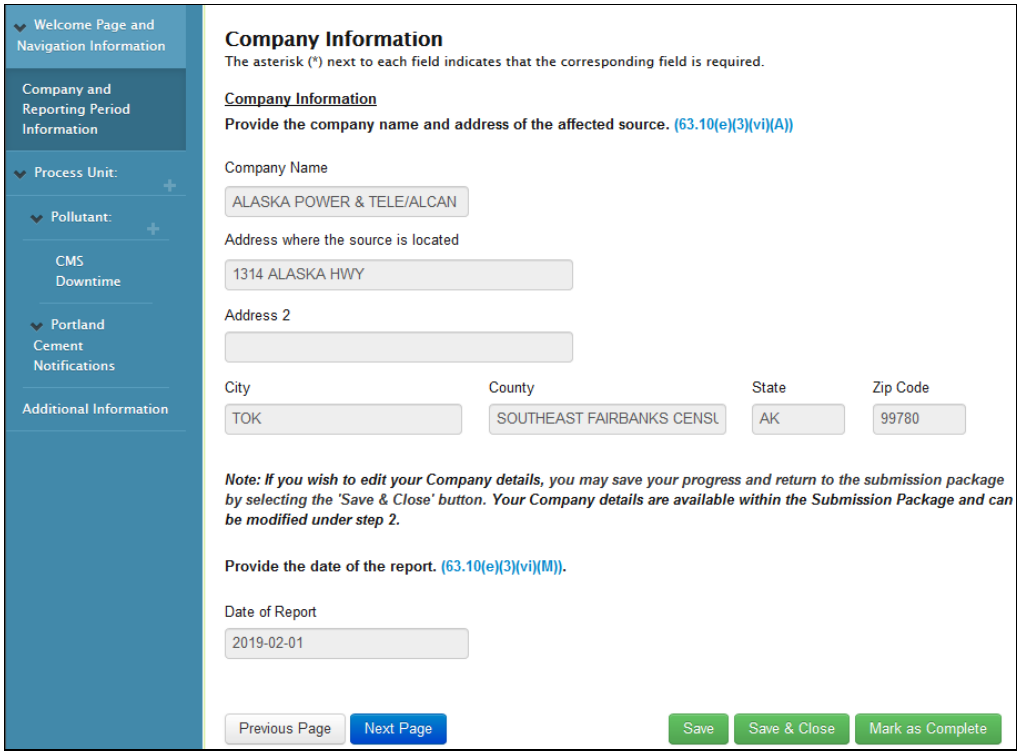

Figure 10. Summary Report web form: Company Information page

3. Emission Point web form page will appear. Select from the 'Process Unit Descriptions*' (required field) dropdown a process unit description.

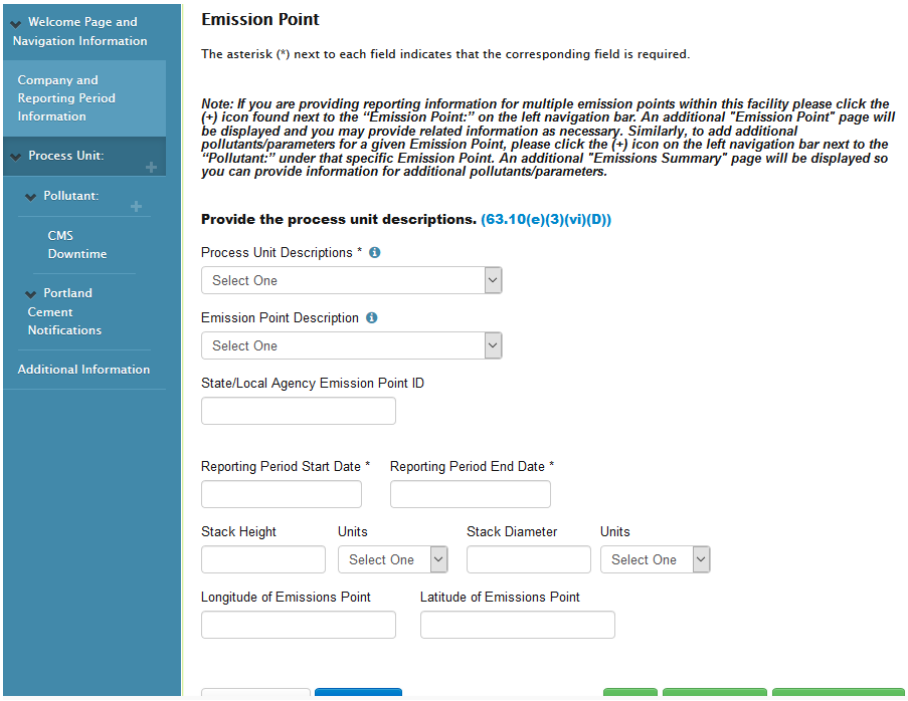

Figure 11a. Summary Report web form: Emission Point page

a. Select 'Other' if process unit not found in drop down. Provide process unit description in the text box found under the 'Enter Process Unit Description* text which will appear.

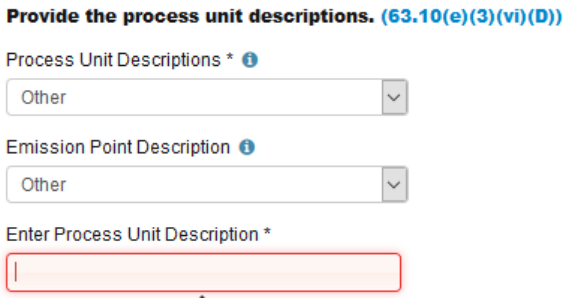

Figure 11b. Summary Report web form: Emission Point page - Adding Process Unit Description

Note: Repeat steps 1 through 3 for all process units. To add additional process units, click on the '+' in the left navigation menu of the form. You will need to make sure all of the required data elements are filled out for each process unit.

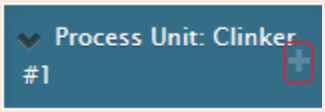

Figure 11c. Process Unit "+" – To Add Process Units

4. Type in or use the pop-up calendar to provide the 'Reporting Period Start Date' and 'Reporting Period End Date*' for the reporting period. All other data elements found on the Emission Point web form page are optional. Click on the Next Page button to continue.

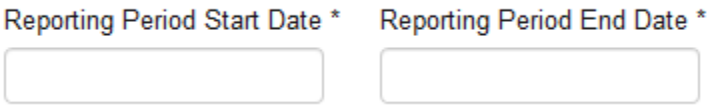

Figure 11d. Summary Report web form: Emission Point page - Adding Reporting Period Date

5. On the Emissions Summary web form page, for the process unit selected on the previous web form page, use the 'Pollutant/Parameter*' dropdown to select a pollutant or parameter.

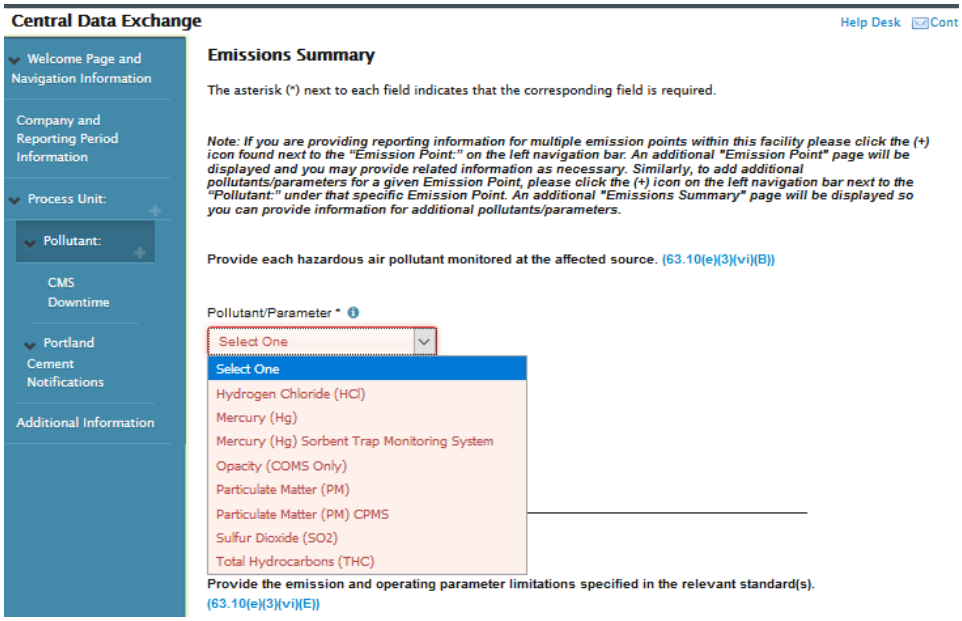

Figure 12. Emissions Summary web form: Pollutant/Parameter Selection

Note: The Excess Emissions and Monitoring System Summary pages will appear in left Navigation once a pollutant or parameter is selected.

6. Under the Operating Scenarios section, for the given pollutant/parameter selected in previous step, answer the question, "Raw Mill Applicable?" If Yes, 'Raw Mill On' and 'Raw Mill Off' check boxes will appear. Click in the appropriate check box. If not applicable, click on 'Not Applicable (N/A)' radio button and move on to next step.

Figure 13. Emissions Summary Web form: Operating Scenarios Selection – Raw Mill On / Raw Mill Off

Note: Need to repeat step 5 for the **same** pollutant/parameter if need to indicate different emission/parameter limits for both operating scenarios.

7. Under the Emission and Operating Parameters Limitations section, use the text box to provide the 'Emission/Parameter Limit*'and the dropdown to provide the 'Pollutant/Parameter Units*' for the pollutant or parameter selected in Step 5 above.

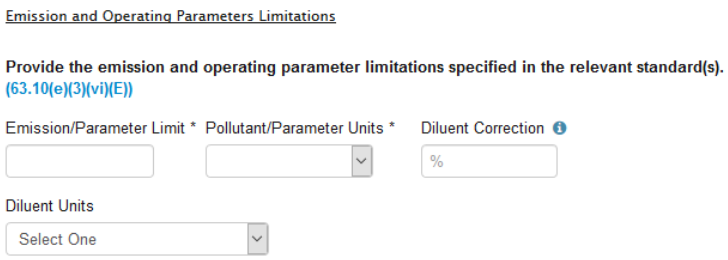

Figure 14. Emissions Summary Web form: Pollutant/Parameter Limit and Units

Note: Diluent Correction (%) and Diluent Units (%O2 or %CO2) are optional data elements.

8. Use the 'Compliance Period*' dropdown to select Compliance Period for the pollutant or parameter selected in Step 5 above.

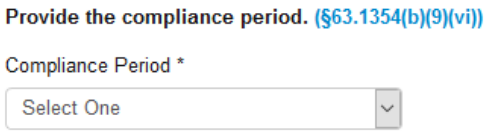

Figure 15. Emissions Summary Web form: Compliance Period

9. Under the Reporting Period section of the Emissions Summary web form page, using the text box under the 'Total operating time during the reporting period*' data element, provide the total operating time for the pollutant or parameter selected in Step 5 above.

Figure 16. Emissions Summary Web form: Reporting Period – Total Operating Time during Reporting Period

10. Under the Monitor/Equipment Information section of the Emissions Summary web form page, answer the question, "Does the Pollutant/Parameter have monitoring equipment?" If Yes, monitoring/equipment section already available. Using the text boxes available under each data element, provide the 'Monitor Equipment Manufacturer(s)*,' 'Monitor Model No., *' and 'Date of latest CMS certification/audit*' (pop-up calendar also available to fill in the date) for the pollutant or parameter selected in Step 5 above. If No, select No and section becomes hidden. Click on the Next Page button to continue.

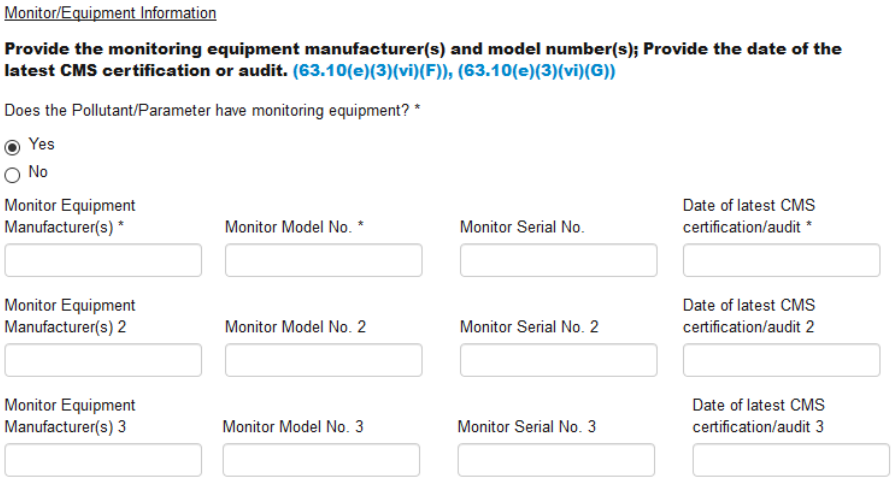

Figure 17. Emissions Summary Web form: Monitor Equipment Information

Notes: 1) Monitor Serial No. is optional data element. 2) Ability to provide two additional sets of monitor equipment information is also available.

11. The 'Excess Emissions' web form page will follow for the pollutant and process selected in previous steps. To provide the required data elements for the excess emissions you can download the excess emissions template from the link provided on the web form page or from the spreadsheet template found on the CEDRI homepage. Fill out the Excess Emissions spreadsheet template and upload using the Upload button. Click on the Next Page button to continue.

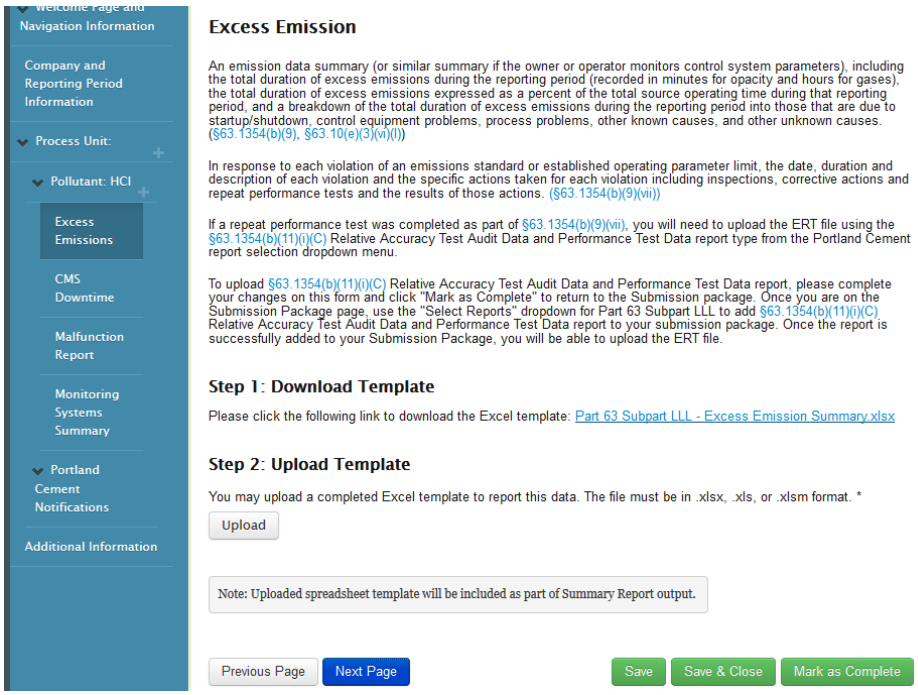

Figure 18. Excess Emissions

Note: 1) If a repeat performance test was completed as part of §63.1354(b)(9)(vii), you will need to upload the ERT file using the 63.1349(b)(11)(i)(C) Relative Accuracy Test Audit Data and Performance Test Data report type from the Portland Cement report selection dropdown menu. 2) To upload 63.1354(b)(11)(i)(C) Relative Accuracy Test Audit Data and Performance Test Data report, please complete your changes on this form and click "Mark as Complete" to return to the Submission package. Once you are on the Submission Package page, use the "Select Reports" dropdown for Part 63 Subpart LLL to add 63.1354(b)(11)(i)(C) Relative Accuracy Test Audit Data and Performance Test Data report to your submission package. Once the report is successfully added to your Submission Package, you will be able to upload the ERT file.

Note: Uploaded spreadsheet template will be included as part of Summary Report output.

12. The 'CMS Downtime' web form page will follow. To provide the CMS downtime, there are two templates available to download and fill out: 1) Excel template for CMS downtime that exceeds 10% (CMS Downtime Details.xlsx) or 2) Excel template for CMS downtime that does not exceed 10% (CMS Downtime Summary.xlsx). To provide the required data elements for the CMS downtime, you can download the CMS downtime template from the link provided on the web form page or from the spreadsheet templates found on the CEDRI homepage. Fill out the appropriate CMS Downtime spreadsheet template and upload using the Upload button. Click on the Next Page button to continue.

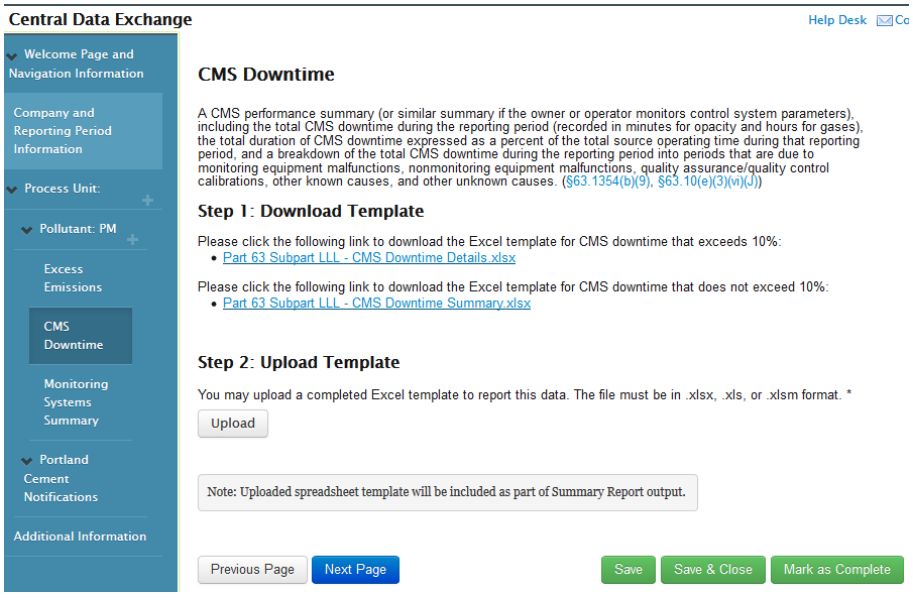

Figure 19. CMS Downtime

Note: Uploaded spreadsheet template will be included as part of Summary Report output.

13. The Monitoring Systems Averages web form page will be made available next. To provide the required data elements for the Monitoring Systems Averages table you can download the Monitoring System Averages spreadsheet template from the link provided on the web form page or from the template found on the CEDRI homepage. Fill out the Monitoring System Averages spreadsheet template and upload using the Upload button. Click on the Next Page button to continue.

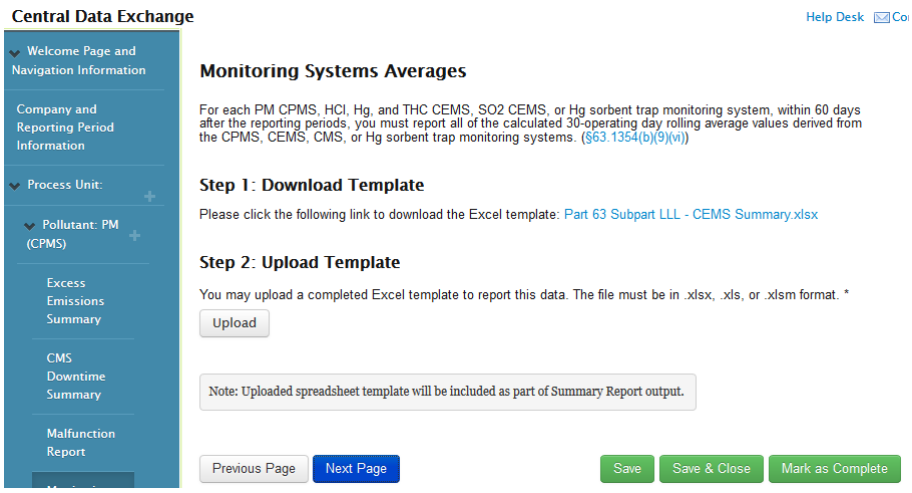

Figure 20. Monitoring Systems Averages: Monitoring Systems Averages

Note: Uploaded spreadsheet template will be included as part of Summary Report output.

14. **REPEAT steps 5 through 16 for each pollutant or parameter at a given process unit. To add additional pollutants or parameters, click on the '+' in the left navigation menu of the form next to the Pollutant or Parameter already added above. You will need to make sure all of the required data elements are filled out for each pollutant or parameter for a given process (found in steps 5 through 13).**

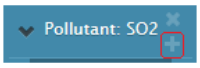

Figure 21. Adding a Pollutant/Parameter using Left Margin Menu

15. **REPEAT steps 2 through 4 for each additional process unit. To add additional process units, click on the '+' in the left navigation menu of the form. You will need to make sure all of the required data elements are filled out for each process unit. For each Process unit, repeat steps 5 through 13 for each pollutant or parameter at each process unit.**

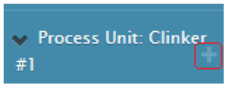

Figure 22. Adding a Process Unit using Left Margin Menu

16. The Notifications for Portland Cement web form page will be made available next. Respond 'Yes' or 'No' to the five notifications. For any response of 'Yes,' you will need to provide an explanation in the text box that will appear or if you respond with 'No,' same text box will allow you to provide any additional information.

Figure 23. Notifications for Portland Cement

a. Were there any exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b)? (§63.1354(b)(9)(i)) *

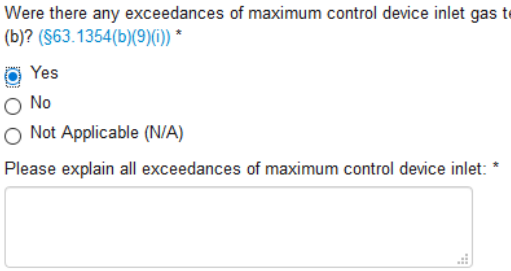

Figure 24. Notifications for Portland Cement: Were there any exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b)?

b. Were there any failures to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii) of this subpart? (§63.1354(b)(9)(ii))*

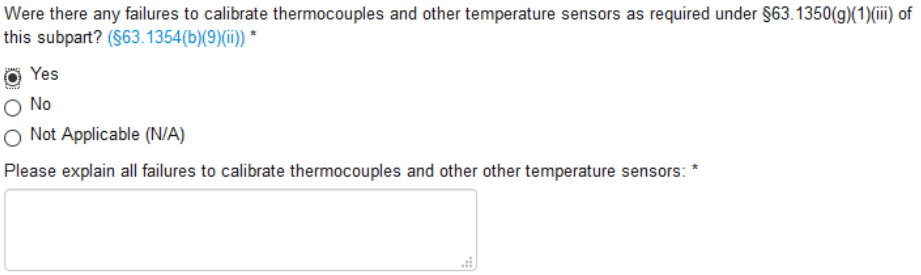

Figure 25. Notifications for Portland Cement: Were there any failures to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii) of this subpart?

c. Were there any failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rates or pressure drops, as applicable, as required under §63.1346(c)(2)? (§63.1354(b)(9)(iii))*

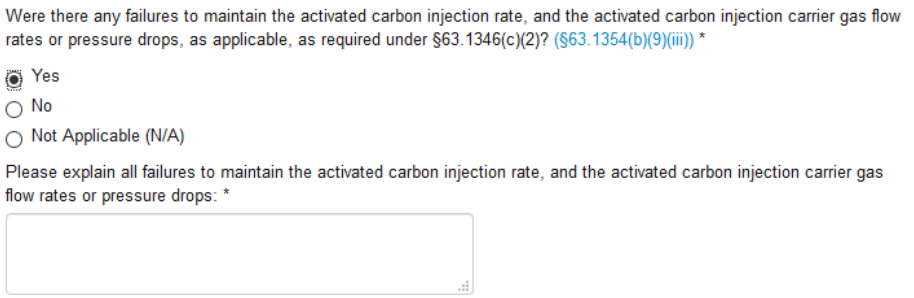

Figure 26. Notifications for Portland Cement: Were there any failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rates or pressure drops, as applicable, as required under §63.1346(c)(2)?

d. Were there any failures to conduct any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3)? (§63.1354(b)(9)(vi))*

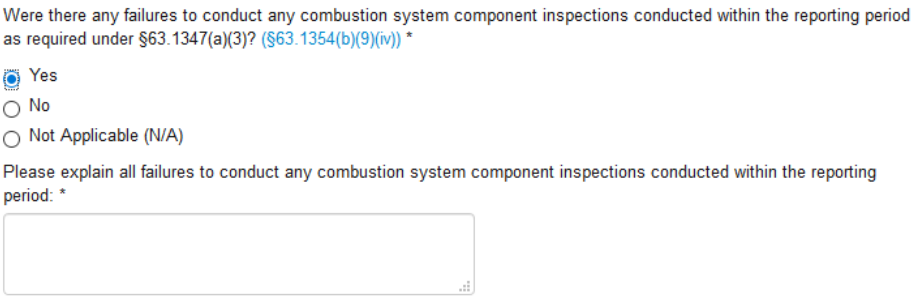

Figure 27. Notifications for Portland Cement: Were there any failures to conduct any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3)?

e. Were there any failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a)? (§63.1354(b)(9)(v))*

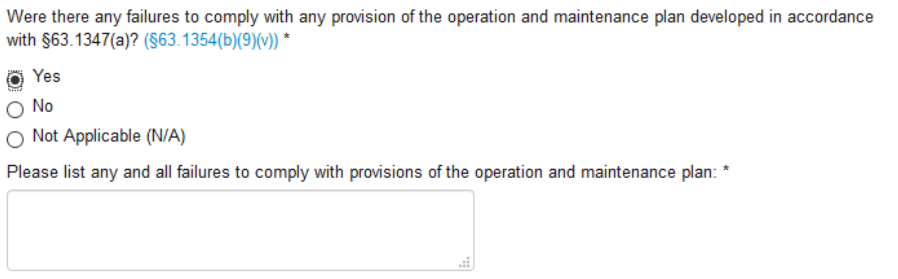

Figure 28. Notifications for Portland Cement: Were there any failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a)?

f. Click on the Next Page button to continue.

17. The Additional Information page will follow (last page of the web form, unless you have additional processes to provide), where you have two text boxes to provide the following:

    a. Describe any changes since last quarter in CMS, process or controls. 63.10(e)(3)(vi)(K)

    b. Please enter any additional information.

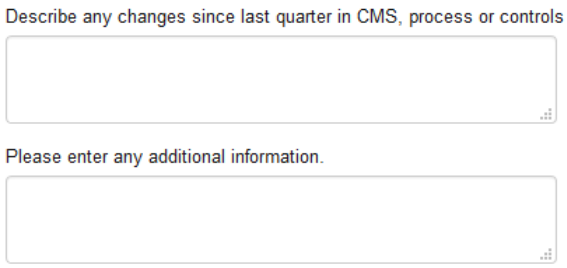

Figure 29. Additional Information: Text Boxes

    c. The web form allows the user to provide an attachment containing any additional information not already provided or something the delegated authority would like to have included.

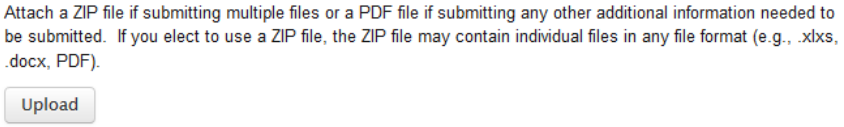

Figure 30. Additional Information: Attachment Upload

18. Final area of Additional Information page, allows user to provide the 'Responsible Official's Name' and 'Responsible Official's Title.'

Figure 31. Additional Information: Responsible Official and Title

Note: Navigation of the web form can be performed via the Previous Page and Next Page buttons or the left navigation menu.

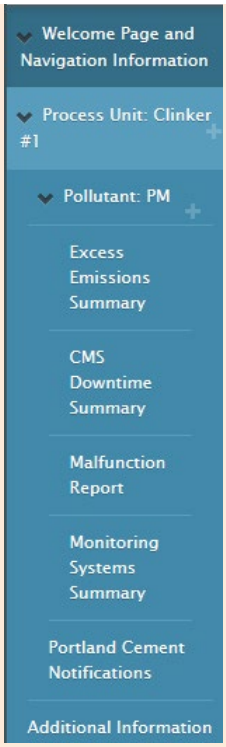

Figure 32. Left Navigation Menu with Process Unit and Single Pollutant

19. Once the web form has been filled out, you are able to 'Preview/Print Report' and/or 'Mark as Complete.' The form can be saved using the 'Save' button at any time while filling out the web form or 'Save and Close' to save and close the form at any time.

Figure 33. Additional Information: Preview/Print Report, Save, Save & Close, and Mark as Complete buttons

PERFORMANCE TEST REPORTS

Provisions regarding performance test reporting are found in 63.1354(b)(11)(i)(C). Note that a summary report is due twice a year, but a performance test for any given pollutant can be performed at any time during the year. The performance test results must be entered within 60 days after the date of completing the test. If a summary report is due during this time period, then the test report and summary report may be entered together. The performance test file needs to be created using the ERT. Once this file is created, a PKG.zip file will contain a .xml file and another zip file that contains the .accdb file. This complete PKG.zip file will be uploaded into CEDRI. Please note that the performance test data can be entered into CEDRI via an upload of

the ERT data using the '63.1354(d)(11)(i)(C) Relative Accuracy Test Audit Data and Performance Test Data' report type from the dropdown, as seen in this CEDRI screen:

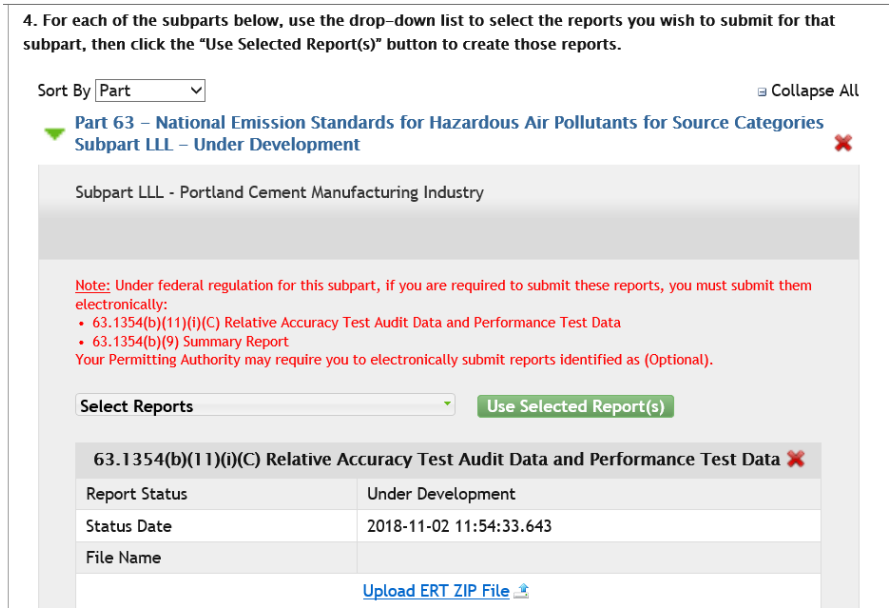

Figure 38. 63.1354(d)(11)(i)(C) Relative Accuracy Test Audit Data and Performance Test Data report dropdown

APPENDIX A – Toxic Equivalency Factors

Dioxins/furans	TEFs 89
2,3,7,8-TCDD	1
1,2,3,7,8-PeCDD	0.5
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.001
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.05
2,3,4,7,8-PeCDF	0.5
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.001

Table 1. Toxic Equivalency Factors