

MEMORANDUM

From: Ron Jordan
USEPA/OW/EAD
ph: (202) 566-1003
jordan.ronald@epa.gov

To: Jim Laity
OMB/OIRA

Date: May 17, 2010

Re: Revisions to the Questionnaire for the Steam Electric Power Generating Effluent
Guidelines (EPA ICR Number 2368.01, OMB Control No. 2040–NEW)

As a result of public comments on the second Federal Register notice regarding the proposed information collection request (ICR) for the steam electric effluent guidelines (75 FR 10791; March 9, 2010) and OMB review, EPA made certain revisions to the questionnaire. The following pages summarize the revised estimated burden for the ICR, as well as the editorial/formatting and substantive changes to the questionnaire. In addition, it should be noted that EPA is now allowing respondents 90 days to return the completed questionnaire to EPA, instead of 60 days (response time for Part G remains 120 days).

Summary of Changes to Burden Estimates

Questionnaire for the Steam Electric Power Generating Effluent Guidelines

The following tables, from Part A of the Supporting Statement, were updated to reflect the changes made to the ICR following the 2nd FRN comment period. The changes are highlighted in red.

The estimated number of respondents in the tables changed based on:

- Finalizing the sample frame population, making small adjustments in response to industry input;
- Changing the cutoff date for Parts C, D, and F cost sections (January 1, 2000 instead of January 1, 1985); and
- Correcting the number of sample points used for calculating Part G burden.

Changing the cutoff date for cost data substantially reduced the number of respondents for Part C: Sections 2.3 through 2.5 and Sections 3.3 through 3.5; and Part D: Section 6. Respondents for Part F: Section 3.2, are also likely to be substantially reduced, but EPA lacks data for assessing the change in cutoff date. The approach for calculating the Part G burden was modified to correct errors that previously double-counted certain activities, such as laboratory procurement and obtaining sampling supplies.

The per-respondent burden for most questionnaire sections does not change substantially. In some cases that is because the section did not significantly. In other cases, the reduced burden due to questions EPA deleted was offset in the burden calculation by adjustments made to the time required to respond to questions, in response to industry comments.

The 15 percent reduction in total industry burden is largely due to the fewer numbers of respondents providing cost and other data, which results from changing the cutoff date from 1985 to 2000.

The revised total hourly burden estimate is 123,146 hours. This is 21,306 hours less than the burden estimate prepared for the 2nd Federal Register notice (144,451). The corresponding total dollar burden is \$6,824,739. This is \$1,187,159 less than the estimate prepared for the 2nd Federal Register notice (\$8,011,898). The revised total burden, including the capital costs, is \$8,041,789. The average hourly burden for the 733 respondents is 168 hours.

Table 6-2. Estimated Respondent Hours per Section of the Questionnaire

Section	Estimated Number of Respondents	Respondent Basis	Hours by Job Category							Total Burden per Activity (Hours)
			Operating Engr	Engr Mng r	Engr Tech	Jr. Acct	Financial Manager	Clerical Support	Legal	
Part A (Total Respondents: 733 Plants)										
Section 1 through Section 7	733	Plant	13.00	4.00	0.00	0.00	0.00	2.00	0.00	19.00
Section 8	733	Plant	4.75	0.75	0.00	0.00	0.00	1.00	0.00	6.50
Section 9 through 11	733	Plant	6.25	2.50	0.00	0.00	0.00	1.00	0.00	9.75
Section 12	495	Plant	4.00	0.75	0.00	0.00	0.00	1.00	0.00	5.75
Part A Total			28.00	8.00	0.00	0.00	0.00	5.00	0.00	41.00
Part B (Total Respondents: 546 Plants)										
Section 1 through Section 3	242	Plant	6.00	1.25	0.00	0.00	0.00	1.00	0.00	8.25
Section 4	259	FGD System	8.00	1.25	0.00	0.00	0.00	1.00	0.00	10.25
Section 5 and Section 7	259	FGD System	4.00	1.25	0.00	0.00	0.00	1.00	0.00	6.25
Section 6	55	FGD System	3.50	0.00	0.00	0.00	0.00	2.50	0.00	6.00
Section 8	68	FGD System	6.75	1.25	0.00	0.00	0.00	1.00	0.00	9.00
Part B Total			28.25	5.00	0.00	0.00	0.00	6.50	0.00	39.75
Part C (Total Respondents: 546 Plants)										
Section 1	530	Plant	1.50	0.50	0.00	0.00	0.00	0.50	0.00	2.50
Section 2.1	1292	Generating Unit	4.50	1.00	0.00	0.00	0.00	0.50	0.00	6.00
Section 2.2	530	Plant	2.50	0.25	0.00	0.00	0.00	0.00	0.00	2.75
Section 2.3 through 2.5	22	Fly Ash Handling System	14.00	1.25	0.00	0.00	0.00	1.50	0.00	16.75
Section 3.1	1292	Generating Unit	5.50	1.00	0.00	0.00	0.00	0.50	0.00	7.00
Section 3.2	530	Plant	2.00	0.25	0.00	0.00	0.00	0.00	0.00	2.25
Section 3.3 through 3.5	40	Bottom Ash Handling System	12.5	1.25	0	0	0	1.5	0	15.25
Section 4	1292	Generating Unit	1.25	0.50	0.00	0.00	0.00	0.00	0.00	1.75
Section 5	1292	Generating Unit	1.25	0.50	0.00	0.00	0.00	0.00	0.00	1.75
Part C Total			45.00	6.50	0.00	0.00	0.00	4.50	0.00	56.00

Table 6-2. Estimated Respondent Hours per Section of the Questionnaire

Part D (Total Respondents: 546 Plants)										
Section 1 and Section 2	530	Plant	3.25	1.25	0.00	0.00	0.00	0.00	0.00	4.50
Section 3	611	Pond/Impoundment/ WWT System	8.25	2.00	0.00	0.00	0.00	1.50	0.00	11.75
Section 4	573	Ponds/Impoundments	7.25	2.00	0.00	0.00	0.00	1.00	0.00	10.25
Section 5	38	WWT Systems	7.50	1.25	0.00	0.00	0.00	1.00	0.00	9.75
Section 6	75	Pond/Impoundment/ WWT System	6.75	1.75	0.00	0.00	0.00	0.00	0.00	8.50
Part D Total			33.00	8.25	0.00	0.00	0.00	3.50	0.00	44.75
Part E (Total Respondents: 327 Plants)										
Section 1 and Section 2	792	Generating Unit	2.75	0.75	0.00	0.00	0.00	0.25	0.00	3.75
Section 3	792	Generating Unit	2.25	0.75	0.00	0.00	0.00	0.25	0.00	3.25
Part E Total			5.00	1.50	0.00	0.00	0.00	0.50	0.00	7.00
Part F (Total Respondents: 97 Plants)										
Section 1 and 2	140	Ponds	3.75	1.50	0.00	0.00	0.00	1.00	0.00	6.25
Section 3.1	55	Landfills	5.75	1.50	0.00	0.00	0.00	0.50	0.00	7.75
Section 3.2	50	Landfills	6.25	1.00	0.00	0.00	0.00	0.00	0.00	7.25
Section 4.1 through 4.5	9	Leachate Treatment Systems	15.50	4.00	0.00	0.00	0.00	2.50	0.00	22.00
Section 5	195	Ponds and Landfills	3.25	1.25	0.00	0.00	0.00	0.50	0.00	5.00
Part F Total			34.50	9.25	0.00	0.00	0.00	4.50	0.00	48.25
Part G (Total Respondents: 97 Plants)										
Lab Procurement	30	Plant	0.00	18.00	6.00	0.00	0.00	0.00	0.00	24.00
Sample Collection	51	Sample	15.00	0.00	17.00	0.00	0.00	0.00	0.00	32.00
Data Entry and Submittal	51	Sample	0.00	2.00	8.00	0.00	0.00	0.00	0.00	10.00
Part G Total			15.00	20.00	31.00	0.00	0.00	0.00	0.00	66.00
Part H (Total Respondents: 733 Plants)										
Section 1	21	Plant	2.25	1.25	0.00	0.00	0.00	0.25	0.00	3.75
Section 2	21	Plant	4.25	1.25	0.00	0.00	0.00	0.25	0.00	5.75
Section 3	21	Plant	3.50	1.25	0.00	0.00	0.00	0.25	0.00	5.00
Part H Total			10.00	3.75	0.00	0.00	0.00	0.75	0.00	14.50

Table 6-2. Estimated Respondent Hours per Section of the Questionnaire

Part I (Total Respondents: 733 Plants)										
Section 1 through 5.3	733	Plant	0.00	0.00	0.00	27.50	11.50	4.00	2.00	45.00
Part I Total			0.00	0.00	0.00	27.50	11.50	4.00	2.00	45.00

Table 6.3 Estimated Respondent Hours per Part of the Questionnaire

Part	Hours by Job Category							
	Operating Engr	Engr Manager	Engr Tech	Jr. Acct	Financial Manager	Clerical Support	Legal	Total Burden per Activity (Hours)
Part A	19,572	5,686	0	0	0	3,427	0	28,685
Part B	5,212	1,035	0	0	0	966	0	7,212
Part C	20,138	4,484	0	0	0	1,650	0	26,272
Part D	11,709	3,209	0	0	0	1,528	0	16,446
Part E	3,960	1,188	0	0	0	396	0	5,544
Part F	1,927	622	0	0	0	288	0	2,837
Part G	765	642	1,455	0	0	0	0	2,862
Part H	210	79	0	0	0	16	0	305
Part I	0	0	0	20,158	8,430	2,932	1,466	32,985
Total	63,492	16,944	1,455	20,158	8,430	11,201	1,466	123,146

Table 6-6. Total Estimated Respondent Burden

Part	Hours by Job Category							
	Operating Engineer	Engineering Manager	Engineering Technician	Jr. Accountant	Financial Manager	Clerical Support	Legal	Total Burden per Activity (Dollars)
Part A	1,125,028.88	442,336.07	0.00	0.00	0.00	69,679.84	0.00	\$1,637,044.78
Part B	299,565.09	80,523.76	0.00	0.00	0.00	19,631.13	0.00	\$399,719.98

Part C	1,157,563.43	348,819.59	0.00	0.00	0.00	33,548.80	0.00	\$1,539,931.82
Part D	673,037.09	249,682.00	0.00	0.00	0.00	31,058.05	0.00	\$953,777.14
Part E	227,626.93	92,427.27	0.00	0.00	0.00	8,051.71	0.00	\$328,105.92
Part F	110,766.94	48,411.51	0.00	0.00	0.00	5,845.62	0.00	\$165,024.07
Part G	43,973.38	49,948.07	53,094.87	0.00	0.00	0.00	0.00	\$147,016.33
Part H	12,071.13	6,126.81	0.00	0.00	0.00	320.24	0.00	\$18,518.17
Part I	0.00	0.00	0.00	856,230.65	601,744.59	59,615.20	118,010.55	\$1,635,600.98
Total	3,649,632.88	1,318,275.07	53,094.87	856,230.65	601,744.59	227,750.59	118,010.55	\$6,824,739.20

Table 6-11. Total Estimated Respondent Burden

Number of Respondents	Total Burden (Hours)	Total Labor Cost	Total O&M Cost	Total Cost
733	123,146	\$6,824,740	\$1,217,049	\$8,041,789

Page	Question	Change	Type of Change	Reason for Change
xii, xv, xix	Glossary	Changes made to definition in glossary: Filter Press: An apparatus used in solids dewatering that utilizes a filter to separate liquid filtrate from solids. Change definition in Part D instructions to include missing phrase regarding examples of ash ponds. Remove zero discharge. Never used in the questionnaire.	Content	Comment
xi, xv, xviii	Glossary	Unbold and unitalicize all "surface water" and "byproduct" terms in the glossary and the questionnaire.	Formatting	Comment
	Glossary	Change definition of process water: Process wastewater – Any water which comes into direct contact with or results from the storage, production, or use of any raw material, intermediate product, finished product, byproduct, or waste product. Examples of process wastewater include, but are not limited to, wastewater from ash handling, equipment cleaning, air pollution control devices, rinse water, coal pile runoff or other contaminated stormwater, and condenser cooling water (i.e., once through cooling water, cooling tower blowdown). Process wastewater does not include other non-contact cooling for other miscellaneous cooling purposes. Process wastewater can be treated, recycled, discharged, or hauled off site for disposal. Sanitary wastewater, potable water, sewage, fire protection, car washes, and uncontaminated stormwater are not considered process wastewater for the purpose of this information collection request.	Content	Comment

Page	Question	Change	Type of Change	Reason for Change
A-4	A1-6	Reverse the order of "stop" and "continue" instructions for question A1-6.	Content	Comment
A-5	A1-8	Revise note to say: [NOTE: Do NOT include fuels only used for start up emergency generators when answering this question.]	Content	Comment
A-9	A2-4, Table A-2	Change question to read "... individual NPDES permit...."	Content	Comment
A-10-A-11	A2-5 through A2- 10	Revise the instructions for Part A Section 2.2 to the following: "Throughout Section 2.2 (Questions A2-5 to A2-10), provide information for all internal and final outfalls designated in the plant's <i>NPDES permit</i> . Note: This section does not require information on stormwater outfalls, other than those storm water outfalls that may be identified in the <i>NPDES permit</i> itself. Please provide all free response answers in the highlighted yellow areas.	Content	Comment
	A2-10, Table A-3	Add a row for "storm water" percentage contribution. Provide a checkbox below the table Checkbox: "Outfall is only used for emergency discharges. (Respondent still required to answer Table A-3)"	Content	Comment
A-22	A5-2	Adjust instructions to say that aerial maps are not required to be provided if a nuclear plant is located on site.		Comment
A-25-A-27	A6- 1	Change "operated in 2009" column to "Calendar Days in Operation".	Content	Comment
A-37	A 10-1, Table A-14	Revise column heading to "Design or Targeted Mercury Removal Efficiency (%)"	Content	Comment
	A3-2	Revise 2nd instruction paragraph: Additionally, provide the latitude and longitude at the pond outlet (see glossary), the closest distance from the pond/impoundment unit to the nearest surface water, the year the pond/impoundment unit was brought online (or is planned to be brought online), and indicate whether the pond/impoundment is lined or unlined and whether leachate (see glossary) is collected from the pond/impoundment (e.g., the pond/impoundment has a leachate collection system or other means for collecting leaks or seepage, etc.). Note: If the pond/impoundment does not have a pond outlet, provide the latitude and longitude <u>corresponding to the emergency outlet for the pond/impoundment</u>	Content	EPA
	A5-1	Revise question: Provide the geographical coordinates of the plant (degrees, minutes, seconds) as reported to EIA on U.S. DOE/EIA Form-860, schedule 2, line 6. Note: Geographical coordinates are not required for any plants that have any nuclear units on site. Checkbox: Geographical coordinates not provided, nuclear unit(s) located at the plant. Remove EIA checkbox.	Content	EPA

Page	Question	Change	Type of Change	Reason for Change
	A13-11	Revise wording of question: Was any water used in the coal pulverization process, other than that used for sluicing mill rejects?	Formatting	EPA
	Part A Destination questions	Revise question to specify which destinations to check. If all destinations are required change language to "Indicate all intermediate and final destination(s) of the FGD wastewater. If the plant recycles the FGD wastewater, indicate the plant process to which this water is recycled. [Check all that apply]." Questions: 9-6, 9-11, 12-5, 13-5, 13-7	Content	EPA
	A7-3	Added question to identify whether POTW effluent is used in condenser cooling system	Content	Comment

Page	Question	EPA Decision	Type of Change	Reason for Change
	Instructions	Revise language on page B-1, to match general instructions for Part B, in order to clarify EPA's request and highlight the date limitation for data to be submitted.	Content	EPA
B- 12	B4- 19	Revise moisture content units from ppm to percent by weight.	Content	EPA
	B1-2 (Table B-2)	Revise last line of question instructions: Also provide the design or actual sulfur dioxide removal efficiency for each FGD system.	Content	EPA
	B8-9	Add: Yes (Continue) No (Skip to Question B8-11) Provide the volume of dry FGD wastewater generated in 2009 (gpd) and the frequency of dry FGD wastewater generation (days). _____ gpd, over _____ days.	Content	EPA
	Part B Destination questions	Revise question to specify which destinations to check. If all destinations are required change language to "Indicate all intermediate and final destination(s) of the FGD wastewater. If the plant recycles the FGD wastewater, indicate the plant process to which this water is recycled. [Check all that apply]." Questions: B7-5, B8-8, B8-10	Content	EPA
		Revise the request for scrubber purge monitoring data. Plants should provide the J-flagged values from the lab, if available. If the J-flagged values are not available, the plant does not have to report them, just enter "< Detection Limit." (Draft ICR requires J value info for all data sets.)	Content	EPA

Page	Question	Change	Type of Change	Reason for Change
	General	Change request for capital costs from 1985 to 2000	Content	Comment
C-1	C 1-2, Table C-1	Combine "Buildings" and "Other Developed Areas" into one category called "Buildings and Other Developed Areas" Add "cooling reservoir" to the (e.g., ...) for Unusable Land entry.	Content	Comment
C-7	C2-7	Revise the question: If the current fly ash handling operations for the steam electric generating unit are expected to change from now until December 31, 2020 , indicate how (i.e., convert to or add dry handling capability). Make this question a "check all that apply" option. Also, add option buttons "Expanding handling capacity" and "Expanding storage capacity"	Content	Comment
C-22	C2-38	Add a note to the question: Note: If the respondent indicates that the ash is transported to a pond/impoundment, in Question C2-45, the intermediate storage and disposal information will be provided in Part D. Therefore, the block diagram should only include the conveyance portion of the system.	Content	Comment
C-41	C3-9	Revise question: Does the plant use a mechanical drag system (e.g., submerged chain conveyor (SCC)) to remove bottom ash from the generating unit boiler(s)? Refer to the glossary for the definition of dry bottom ash handling systems.	Content	Comment
	Table C-2	Remove Fly Ash Class column from the table.	Content	EPA
	C2-13/14 and C3-14/15	Remove questions from the questionnaire. We are not interested ultimately in why the plant converted from wet to dry, but how they converted.	Content	EPA
	C2-17	Remove from questionnaire (overlap with Part B)	Content	EPA
	C2-20	Remove from questionnaire.	Content	EPA
	C2-25	Remove the request for "Number of dry-to-wet mixing junctions" and "Distance(s) between hoppers and dry-to-wet mixing junction(s).".	Content	EPA
	C2-33	For the two landfill checkboxes, add place for plants to insert the landfill IDs from Part A.	Formatting	EPA
	Sections 2.5, 2.6, 3.5, and 3.6	revise/simplify conveyance and intermediate storage component lists to reduce burden.	Content	EPA

Page	Question	Change	Type of Change	Reason for Change
	C3-8	Revise the question: If the current bottom ash handling operations for the steam electric generating unit are expected to change from now until December 31, 2020 , indicate how (i.e., convert to or add dry handling capability). Make this question a "check all that apply" option. Also, add option buttons "Expanding handling capacity" and "Expanding storage capacity"	Content	EPA
	C3-38	Add a note to the question: Note: If the respondent indicates that the ash is transported to a pond/impoundment, in Question C3-45, the intermediate storage and disposal information will be provided in Part D. Therefore, the block diagram should only include the conveyance portion of the system.	Content	EPA
		Restructured Part C to streamline/simplify and substantially shorten the section and reduce potential confusion.	Content	EPA
	C2-4 and C3-5	Removed from questionnaire, too much overlap with C2-3 and C3-4, respectively.	Content	EPA
	C3-33	Made same change to table as in question C2-26 (Combined distance columns, made "pipe" an option for transporting the ash.	Content	EPA

Page	Question	Change	Type of Change	Reason for Change
	D2-3	Remove request for information about analytical methods used for pilot- and full-scale studies	Content	EPA
D- 18	D4-9	Revise the question Describe any expansion(s), since January 1, 2000, to the pond/impoundment unit, including the starting and ending dimensions and the total capital associated with the expansion(s). Note: Total capital costs should include purchased equipment, installation, buildings, site preparation, land, engineering costs, construction expenses, and any other costs available.	Content	Comment
	D3-1	Fix references within checklist: 4th check: "...to the chemicals listed in Tables D-7 and D-13" 7th check: "...flow rates that are entered into Tables D-3 and D-4 in Questions D3-2 and D3-3."	Formatting	EPA
		Limit request for capital costs to systems installed since 2000	Content	EPA
	WWT Unit Drop Down	Added brine concentrator, dryer, and evaporator to list of WWT Units to cover ZLD units.	Content	EPA

Page	Question	Change	Type of Change	Reason for Change
	Instructions to Part E	Change definition: "... any process wastewaters resulting from cleaning (with or without chemical cleaning compounds) any metal process equipment, including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air heater cleaning. Report all soot blowing operations that use water or steam during the cleaning event. "	Content	Comment
E-2-E-3	E2- 1, Table E-1	Change instructions for E2-1 and E2-2: In Table E-1, provide information about a typical cleaning event for each cleaning operation that <u>uses</u> chemical cleaning compounds on metal process equipment associated with fossil- or nuclear fueled electric generating units. In Table E-2, provide information about a typical cleaning event for each cleaning operation that <u>does not use</u> chemical cleaning compounds on metal process equipment associated with fossil- or nuclear-fueled electric generating units.	Content	Comment
E-7	E3-7	Change unit "tpy" to "tons per cleaning event."	Content	Comment
	Tables E-1 and E-2	Revise codes for tables E-1 and E-2, so that cleaning operations are identifiable in later sections of Part E. For example, change: TUBE to TUBE_CHEM (Table E-1) and TUBE_NO_CHEM (Table E-2)	Content	EPA
	Tables E-1 and E-2	Fix the example in "Typical Frequency" column so that it reads "1 time every 3 years" and fix the response to read " ____time(s) every ____ years"	Content	EPA
	E3-5 and E3-7	Spelling errors: E3-5: "unknown"; E3-7 "permanently"	Formatting	EPA

Page	Question	Change	Type of Change	Reason for Change
F-4	F2-7	Revise the question: Does the plant collect stormwater, rainfall, or other process wastewaters in the collection system for this pond/impoundment unit? If yes, identify the stormwater, rainfall, or process wastewaters and their flow rates. If the process wastewater is not one of the response options provided, select "Other" in the drop-down box and specify the type of process wastewater in the yellow highlighted space below. Change units for all responses to gpy, not gpd.	Content	Comment
F-7	F2-12	Delete question	Content	Comment
F-24	F4-5	Revise question: "In Table F-7, list all improvements to the leachate treatment system planned up to December 31, 2020. "	Content	Comment
	F2-1	Delete question	Content	EPA
	F2-7	Spelling error: "identify", add "If other, explain:" prior to yellow response box	Formatting	EPA
	F2-11	Revise questionnaire responses: change "month" to "year" for all.	Content	EPA
	F2-12	Remove table from the questionnaire.	Content	EPA
	F3-8 and F3-9	Change "HPDE" to "HDPE"	Formatting	EPA
	F2-6 and F3-12	Questions require respondents to provide a description of the estimate method in the comments tab. Allow space for explanation in question.	Formatting	EPA
	F4-4	Revise instructions: "...Pond ID. The leachate treatment unit ID option accounts for the possibility of multiple units; they are numbered sequentially. For example, if the leachate treatment system includes two clarifiers, select CL-1 for the first clarifier and CL-2 for the second. Note that these terms are defined in the "Code Tables" tab at the end of Part F. In the "Plant Designation" column, provide the plant's name for each leachate treatment unit. In the "Date Added to System" column, either enter the date the unit was/will be installed if the unit is a retrofit, or enter "original" if the unit was part of the original wastewater treatment system installation. to "...Pond ID. The drop down menu accounts for the possibility of multiple leachate treatment system units; they are numbered sequentially. Note that these terms originated from the code tables on the "Code Tables" tab, provided at the end of this workbook. For example, if the leachate treatment system includes two clarifiers, select Clarification, Primary-1 for the first clarifier and Clarification, Secondary-1 for the second. In the "Plant Designation" column, provide name for each leachate treatment unit. In the "Date Added to WWT System" column, either enter the date the unit was/will be installed if the unit is a retrofit, or enter "original" if the unit was part of the original wastewater treatment system installation.	Formatting	EPA
	F4-6	Spelling error: "potential"	Formatting	EPA
	Landfill Costs	Insert section to collect landfill costs: Insert question to collect the capital cost to install landfills (since 2000); mimic format of Q4-17. Clarify that leachate treatment systems should NOT be included in the costs. Insert question to collect the 2009 O&M to operate the landfill; mimic format of Q4-16. Again, clarify that leachate treatment system O&M should NOT be included.	Content	EPA
	F3-6	Removed request for cost information (because it is already requested in question F3-7)	Content	EPA
	F5-6	Water table wording changed to define the request: In Table F-14, provide the average water table depth, averaged over the last year , at each monitoring well location and the distance to the nearest surface water.	Content	Comment

Page	Question	Change	Type of Change	Reason for Change
G-2, G-3	G2- 1 and Figure G- 1	Add another set of boxes to ask if leachate is 100% returned to the pond. If yes, no sample collection is required	Content	Comment
	Page G-5	Revise instructions: EPA will then determine if the plant is exempt from the leachate sample collection requirement. If the plant can provide previously collected leachate characterization data, then the plant should complete Question G4-1, then continue to Section 5 (Question G5-1). Also, the plant must provide the leachate sampling data in Table G-4 found in the "Part G Sampling Results" tab. If the plant cannot collect the samples safely, then the plant should SKIP Section 4, then continue to Section 5 (Question G5-1).	Formatting	EPA
	G3-3	Add checkbox to determine that plants have identified the sampling points on diagram requested in F4-2. Checkbox: Leachate sampling collection locations identified on the block diagram requested in Part F, Question F4-2.	Formatting	EPA

Page	Question	Change	Type of Change	Reason for Change
H-1	H1-2	Revise question: Did the plant generate any process wastewater (with the exception of wastewater from service water treatment systems, such as reverse osmosis reject water) during 2009 that is associated with the production of electricity from nuclear generating units?	Content	Comment
H-1, H-6	H 1-3, Table H-1	Add a definition in the glossary and revise term to "chemical and volume control system"	Content	Comment
H-7	H2- 1, Table H-2	40 CFR Part 122.2 provides a definition for continuous that states "a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities." Add this definition of "continuous" to the questionnaire. Change the term "intermittent" to "not continuous."	Content	Comment
H-10	H3-3	Revise question: "... In addition, provide the duration and frequency of the discharges, and other dispositions off-site, from the wastewater treatment system in 2009.	Content	Comment
H-10	H3-4	Delete question and add "oil/water separator" and "dechlorination" to the "Wastewater Treatment Technology" drop down menu.	Content	Comment
H- 14-H-15	H3-6, Table H-4	delete last column of Table H-4	Content	Comment
H-16	H3-7	Revise H2-2: Indicate how the untreated process wastewater is handled. If recycled, indicate to which process the process wastewater is recycled. Underline/italicize "treated" in question H3-7.	Formatting	Comment
	H3-4 and H3-5	Delete question H3-4. Delete the last column of the table in question H3-5.	Content	EPA
	Page H-3	Spelling error: "IF"	Formatting	EPA
	Table H-2	Unlock cell G21 and change it to yellow in order to get "typical volume generated annually" for both continuous and non-continuous flows.	Formatting	EPA
	Table H-2	Fix the example in "Typical Frequency" column so that it reads "1 time every 3 years" and fix the response to read "____ time(s) every ____ years"	Content	EPA

Revisions to Part I

- Part I Instructions: removed mention of a separate glossary for Part I terms. A single glossary is used for all parts of the questionnaire.
- P I-2, 2nd para of instructions: deleted "...when answering the rest of the questions in this section."
- P I-2, below Table I-2: added details of calculations that can be used to determine ownership share of steam capacity for each company.
- Q I2-11: changed the wording of the question to specify that EPA requests data specifically on electric energy generated, purchased, exchanged and wheeled during each year.
- Added a new question, after questions I4-10 and I4-11, to request that respondents who estimate plant-level balance sheet and/or income statement information describe the estimation methodology they used, if other than the default methodology outlined in the instructions.
- P I-17, Col labeled "Gross and Net Electricity Generated": separated the entry into two distinct columns and specified the units to be used (MWh).
- P I-21: added a note at the bottom of the table to clarify that total operating costs may also include other operating costs such as fixed O&M costs.
- Glossary: revised the definition of immediate parent firm to clarify that EPA seeks information on the firm that is most immediately and closely responsible for facility expenses associated with the steam electric generating units and to clarify that seek the first entity in the plant ownership structure for which standard financial statements are prepared and reported. The revised definition reads "Immediate parent firm – The first entity in the facility's ownership structure responsible for facility's expenses associated with steam electric generating units. This is generally the first entity in the plant ownership structure for which standard financial statements are prepared and reported. Note that for the purpose of Part I of the questionnaire, if a plant that has multiple owners, detailed financial and economic data are requested, at a minimum, for the immediate parent firm that holds the largest equity share in the plant. Respondents have the option to provide detailed financial and economic data separately for each relevant immediate parent firm, for example in cases where equity shares do not appropriately indicate participation in a plant's steam generation operations."
- Page I-3, Question I2-5: removed revenue indirectly derived from generation of electricity (e.g., sale of steam or ash, waste combustion) from question I2-5 and instead request this information as a specific line item in Question I2-7.
- Page I-4, Question I2-7, Table I-4. "Total operating expenses" heading revised to "Total Expenses"
- Page I-4, Question I2-7, Table I-4: revised the question to clarify that all other expenses should reflect the cost of activities detailed in Question I2-5.

- Page I-4: combined all non-current assets in one entry in Table I-5 and no longer ask that respondents report land and buildings separately from other equipment, machinery and other physical capital when providing parent firm-level information.
- Page I-5, Question I2-9: revised the wording of some of the items to match more closely the wording used in FERC Form 1.
- Page I-10, Question I4-7: To make the question easier to answer using existing data, revised the question to simply ask respondents to identify the relevant range based on SBA size standards (e.g., less than 50, 50-100, 100-250, 250-500, 500-750, 750-1,000, 1,000-1,500, and greater than 1,500).
- Page I-21, Question I5-4: revised the definition and wording of Question I5-4 to refer specifically to the categories of costs considered to be variable O&M costs for the purpose of the ICR, namely: fuel handling, steam expenses (other than direct labor costs) and electric expenses (other than direct labor costs). For the purpose of this ICR, clarified that EPA does not consider scheduled maintenance such as maintenance of boiler or electric plant or of other equipment to be “variable” O&M, but instead considers these costs to be part of fixed O&M costs. Also revised the definition of variable O&M provided in the glossary accordingly.
- Glossary: Revised the definition of “Variable O&M” to read: “Variable O&M costs – Operation and maintenance costs that vary directly in proportion to the amount of electricity generated by a plant. For the purpose of this questionnaire, variable O&M costs include fuel handling (i.e., FERC values 501 and 547), steam expense other than direct labor costs (FERC value 502), and electric expense other than direct labor costs (FERC value 505). All other costs (e.g., 502: maintenance of boiler plant; 512: maintenance of electric plant; 533: maintenance of generating and electric equipment) are to be considered Fixed O&M costs and are to be excluded from “Variable O&M” costs. Note that fuel expenses are not included as Variable O&M or Fixed O&M costs but are accounted for separately.
- Total sources of electric energy in Question I2-10, Table I-7: clarified that total sources of electricity include net energy exchanged. This is consistent with categories used by FERC to define sources of energy in Form 1.
- Total uses of electric energy in Question I2-11, Table I-8: clarified that total uses of electricity include energy losses. This is consistent with categories used by FERC to define the disposition of energy in Form 1.