

# BAPC – Compliance Branch Facility Records Template Spreadsheet Guidance Document

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# **TABLE OF CONTENTS**

I.	Purpose	1
II.	When the Template Should be Used	1
III.	Important Spreadsheet Rules and Reminders	1
IV.	"Setup" Tab	1-2
V.	"System" Tab	2-13



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# I. PURPOSE

The Facility Records Template was created and designed for facilities regulated by the Nevada Division of Environmental Protection – Bureau of Air Pollution Control (BAPC) to monitor and record information required by their air quality operating permit. The Facility Records Template contains a large majority of the items required to be monitored and recorded in a standard air permit. This template also serves to streamline the inspection process when records are reviewed. With this spreadsheet, the Facility Representative (User) will be able to clearly display required records and better stay in compliance with their air permit.

# II. WHEN THE TEMPLATE SHOULD BE USED

The Facility Records Template should be used when a facility owner or operator is not sure in their ability to properly maintain records to stay in compliance with their air permit without the use of a predesigned aid like this template. The template should also be used when the facility owner or operator has demonstrated a significant lack of recordkeeping compliance to the BAPC. This template is NOT required to be used but is a resource that can be used to assist in facility compliance. Using this template does not guarantee a facility will remain in compliance, and some permit requirements are not able to be recorded in this template as built without modifications to the template by the facility.

# **III. IMPORTANT SPREADSHEET RULES AND REMINDERS**

- Deleting in individual or group of cells, columns, and rows will create errors in the preexisting equations. Unless the User is well versed in Excel, the User should only hide unused columns.
- There are notes in certain cells for each tab of the spreadsheet to assist with when it is appropriate to add information to the related data field. Most of the notes are hidden and can be seen by finding on of the cells with the red mark in the upper right-hand corner and hovering over it with the mouse icon.

# IV. "SETUP" TAB

• The **Setup Tab** is labeled "**SETUP**" in the spreadsheet template. In this tab, the User enters the calendar year that is being recorded as a 4-digit number in the cell below the cell marked "Recording Year" (1). The User then enters operating parameter units in the cells below the cell marked "Operating Parameter Units" (2). Units entered under this column should not be any combined units (e.g., Tons/Hour, Gallons/Minute, Tons/Batch, etc.) because the spreadsheet will automatically combine the fuel usage and/or material throughput units with the units of duration. NOTE: Comments for both sections in the Setup Tab are visible to assist and provide information (3).





Authors: Gregg Rosenberg Updated: 9/10/2024

### IV. "SETUP" TAB (continued)

- The Operating Parameter Units section already has some commonly used units provided. The User can delete and add any, as necessary.
- The **Yellow** cells are meant to indicate information the is required to be entered. These cells turn to white when information is entered.
- The White cells are meant to indicate where additional information can be entered but are not necessarily required.

### V. "SYSTEM" TAB

The System Tab is labeled "System XX (S2.XXX - S2.XXX)" in the spreadsheet template. This tab is meant to be copied so there are as many tabs as needed to fulfill all the monitoring and recordkeeping requirements in the permit, including but not limited to the Specific Operating Conditions, Emission Caps, Schedules of Compliance, etc. This may mean that the number of tabs is less than the number of systems in a permit if one set of records can represent multiple systems. This can also mean that the number of tabs is greater than the number of systems if there are different operating parameters for emission units within the same system or recordkeeping is required for operations of separate and combined emission units (e.g., two emission units run in parallel and the permit requires the material throughput be measured through each emission unit and the permit requires the combined sum of the throughputs be recorded as well). In many cases, the number of tabs will be equal to the number of systems in the permit. Each tab is recommended to be named according to the naming convention already established (i.e., "System" followed by the system number and the applicable emission unit number or numbers in parentheses), but the naming convention can be whatever the User finds most beneficial. There are many sections within this tab, and not every section will be used for every system. More than likely, different sections will be used for different systems. In this tab, the User first enters the system (4) and emission unit (5) number or numbers that are being recorded in the tab. NOTE: Comments are hidden throughout the System tab to prevent creating significant clutter within the tab. The purpose of the comments is to provide assistance and information to the User. In order to view each comment, use the mouse to hover over a cell with a red tag in the upper right-hand corner (6).





# BAPC – Compliance Branch Emissions Calculations Inventory Spreadsheet

**Guidance Document** 

Authors: Gregg Rosenberg Updated: 9/10/2024

### V. "SYSTEM" TAB (continued)

#### Section I. Relevant Information Questions:

• The next step is for the User to answer the questions under the cells where the User entered the system and emission unit numbers. If your answer to the question, "Does this system have hour restrictions?", is "Yes", then a question will appear below it asking, "Does this system have time if day restrictions?" (7).

	A	В		А	В
	Does this system have hour			Does this system have hour	
3	restrictions?	<b>Choose Option</b>	3	restrictions?	Yes 7
				Boes this system have time if	
4			4	day restrictions?	Choose Option
	What operating parameters do			What operating parameters do	
5	you have to keep track of?	<b>Choose Option</b>	5	you have to keep track of?	<b>Choose Option</b>
	Do you have a 12-month rolling			Do you have a 12-month rolling	
6	recordkeeping requirement?	<b>Choose Option</b>	6	recordkeeping requirement?	<b>Choose Option</b>
7	Do you have VEO requirements?	<b>Choose Option</b>	7	Do you have VEO requirements?	<b>Choose Option</b>
8	Do you have add-on controls?	Choose Option	8	Do you have add-on controls?	<b>Choose Option</b>

• As the User answers these questions, sections of the tab will blackout because they are not relevant (e.g., If I answer "No" to the question, "Do you have a 12-month rolling recordkeeping requirement?" (8), then the "Previous Year: Monthly Totals" section will blackout (9). NOTE: When an area is blacked-out, the User can hide those columns in the spreadsheet to consolidate space. DO NOT DELETE ANY CELLS, OTHERWISE THERE MAY BE ERRORS THAT APPEAR.

	A	В	С	D	E	F
	Does this system have hour					
3	restrictions?	<b>Choose Option</b>				
4						
	What operating parameters do					
5	you have to keep track of?	<b>Choose Option</b>				
	Do you have a 12-month rolling					
6	recordkeeping requirement?	No				
7	Do you have VEO requirements?	Choose Option				
8	Do you have add-on controls?	Choose Option				
9						
10						
11	8					
12						
13						
14		9				
15						
16						
4.7						



Authors: Gregg Rosenberg Updated: 9/10/2024

### V. "SYSTEM" TAB (continued)

#### Section I. Relevant Information Questions (continued):

- If the User answers "Yes" to the question, ""Does this system have time if day restrictions?" (10), then the columns with the start and end times under the "Duration of Operation" section will turn **yellow** indicating that information is required to be entered into those cells (11).
- The reason the User would answer "Yes" to the question, "Does this system have hour restrictions?", is if the system is permitted to operate less than 24 hours a day and/or less than 8,760 hours per year. If the system's Specific Operating Conditions section states, "... may operate a total of 24 hours per day.", or "... may operate 8,760 hours per year.", under the Operating Parameters subsection, then the User would answer "No".
- If the User answers "Yes" to the first question, then the next question, "Does this system have time if day restrictions?", appears. The User would answer "Yes" to this question only if the Operating Parameters subsection has a condition that states something like, "... may operate from 4:00 AM to 8:00 PM only." Otherwise, the User would answer "No".



- The question, "What operating parameters do you have to keep track of?", has 3 options for an answer: "Material Throughput", "Fuel Usage", and "Both" (12).
- The reason for answering the question with "Material Throughput" is if the Specific Operating Conditions for the system state something similar to, "The maximum allowable throughput rate for …", under the Operating Parameters subsection.
- The reason for answering the question with "Fuel Usage" is if the Specific Operating Conditions for the system state something similar to, "The maximum allowable fuel consumption rate for …", under the Operating Parameters subsection.
- If the Operating Parameters subsection has both statements for the system, then the User would select "Both".
- Some examples of emission units that would only have a material throughput parameter would be conveyor belts, crushers, screens, bucket elevators, etc.



Authors: Gregg Rosenberg Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

#### Section I. Relevant Information Questions (continued):

- Some examples of emission units that would only have fuel usage as an operating parameter would be engines, boilers, heaters, etc.
- Some examples of emission units that would have both operating parameters would be kilns, dryers, extruders, etc.



- The question, "Do you have a 12-month rolling recordkeeping requirement?", should only be answered with "Yes" if the Monitoring, Recordkeeping, and Reporting subsection in the Specific Operating Conditions for the system state something similar to, "Record the... on a cumulative monthly basis, for each 12-month rolling period." If the system doesn't have any annual recording language in the Monitoring, Recordkeeping, and Reporting subsection or if there is language similar to, "Monitor and record the total yearly... shall be determined at the end of each month as the sum of the monthly throughput rates for the year for all previous months of that year.", then the User should answer "No".
- The question, "Do you have VEO requirements?", is in reference to visible emissions observations, otherwise commonly known as opacity observations. There may be language under the Performance and Compliance Testing subsection of the system that refers to Method 9 for opacity observations. That is not necessarily related to periodic VEO requirements. Those would still be under the Monitoring, Recordkeeping, and Reporting subsection, and would have language similar to, "Conduct and record an observation of visible emissions (excluding water vapor) ... on a monthly basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.", which would indicate that the User answer "Yes".
- The question, "Do you have add-on controls?", can be found by looking at the Air Pollution Control Equipment subsection in the system's Specific Operating Conditions. If the subsection has "No add-on controls", for some or all of the associated emission units listed in the system, then the User would answer "No". Otherwise, the User would answer "Yes".



Authors: Gregg Rosenberg

Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

#### Section II. Previous Year's Monthly Totals:

- After the Relevant Information Questions are completely answered, if the Previous Year's Monthly Totals section is not blacked out, then the information will need to be entered.
- Some of the information in this section may be blacked out depending on the answers to the Relevant Information Questions section. Any information that is blacked out can be skipped.
- Under "Operating Time", the units are defaulted to "Hours". It is very unlikely that another unit will go there in place of "Hours", but it can be changed, if necessary (13).
- The units under "Material Processed" and "Fuel Usage" should be selected from the drop-down lists (14) (15). NOTE: These menus are linked to their respective sections under the daily records area (16) (17), but the User can use different units between each section, if necessary.
- The information that is to be entered under this section must be collected from the previous year's recordkeeping database starting from the month of February of the previous year until the end of that year. NOTE: The reason January of the previous year is not entered is because January is only needed until December of the previous year to calculate the 12-month rolling total.



	С	D	E	F	G	н	- I	J	К	L	М	N	0
1							Duration of Operation			Material F	Processed	Fuell	Jsage
2						16	Permitted Permitted Stort Time: End Time: Permit Limit:		Permit Limit:		Permit Limit:		
3	Pre	evious Year's Mor	thly Totals										
4		Operating Time	Material Procession	Fuel Usage		DATE	Start Time	End Time	Select Units	Tons	)	Gallons	
5	Month	Hours	Tons	Gallons	-	1/1/1900							
6	February 1899		$\smile$			1/2/1900						_	
7 8	March 1899 April 1899					1/3/1900 1/4/1900						-	
9 10	May 1899 June 1899					1/5/1900						-	
11	July 1899					1/7/1900							
13	September 1899					1/9/1900	17					-	
14 15	November 1899					1/10/1900							
16	December 1899					1/12/1900							



Authors: Gregg Rosenberg Updated: 9/10/2024

### V. "SYSTEM" TAB (continued)

#### Section III. Duration of Operation:

- After the Relevant Information Questions are completely answered, if the "Permitted Start Time" and "Permitted Stop Time" columns are not blacked out, then the information will need to be entered (18) (19).
- The Yellow cell under "Permit Limit" (20) needs to be filled out even if the system is permitted to operate 24 hours per day. NOTE: If the permit does not include daily hours of operation but states that the system can operate 8,760 hours per year, then the allowed daily hours of operation is 24.
- The "Select Units" cell in this section is a drop-down menu where the User can select the appropriate duration units (e.g., hours, minutes, batches, etc.) (21).
- There is a hidden equation in each cell of the last column where the daily information is to be entered in the Duration of Operation section that calculates the hours of operation by subtracting the daily end time from the daily start time (22). If the daily information columns under "Start Time" and "End Time" are not blacked out, then only the daily start and end times need to be entered, and the last column will calculate the total daily hours of operation. If the "Start Time" and "End Time" columns are blacked out, then the User can enter the hours of operation in the respective cell for that day in the last column and overwrite the equation. **NOTE: If the unit did not operate that day, the user should AT MINIMUM enter a "0" into the last column for the applicable day to clearly identify that the unit didn't operate as opposed to leaving the cell blank which appears to indicate that the hours of operation were not recorded.**
- The cells under the daily information will turn **Red** in each corresponding column if the start time is earlier than the permitted start time (23), the end time is after the permitted end time (24), or if the daily duration of operation exceeds the permitted limit for duration of operation (25). NOTE: The maximum number of hours that should be entered in the last column of the section is 24.





Authors: Gregg Rosenberg

Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

#### Section IV. Material Processed:

- After the Relevant Information Questions are completely answered, if the "Material Processed" section is not blacked out, then the information will need to be entered.
- The Yellow cell under "Permit Limit" (26) needs to be filled out with the daily average material throughput limit per unit of duration.
- The "Select Units" cell in this section is a drop-down menu where the User can select the appropriate material units (e.g., tons, lbs, etc.) (27) if the units did not autofill due to entering the units under the Previous Year's Monthly Totals section. NOTE: The units from the Duration of Operation and Material Processed sections will combine when both units are selected. There is a hidden equation in each cell of the last column under the cell with the combined units that calculates the daily average of material throughput per unit of duration (28).
- The last cells of the last column in this section will turn **Orange** and generate an error message if there is either hours of operation and no material throughput (29) or material throughput and no hours of operation (30). This suggests a recordkeeping deviation unless thorough notes are included to clarify a rational reason for this. The cells will turn **Red** if the daily average material throughput rate exceeds the permit limit (31).





Authors: Gregg Rosenberg Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

#### Section V. Fuel Usage:

- After the Relevant Information Questions are completely answered, if the "Fuel Usage" section is not blacked out, then the information will need to be entered.
- The Yellow cell under "Permit Limit" (32) needs to be filled out with the daily average fuel usage per unit of duration.
- The "Select Units" cell in this section is a drop-down menu where the User can select the appropriate fuel units (e.g., ft^3, gallons, etc.) (33) if the units did not autofill due to entering the units under the Previous Year's Monthly Totals section. NOTE: The units from the Duration of Operation and Fuel Usage sections will combine when both units are selected. There is a hidden equation in each cell of the last column under the cell with the combined units that calculates the daily average of fuel usage per unit of duration (34).
- The last cells of the last column in this section will turn **Orange** and generate an error message if there is either hours of operation and no fuel usage (35) or fuel usage and no hours of operation (36). This suggests a recordkeeping deviation unless thorough notes are included to clarify a rational reason for this. The cells will turn **Red** if the daily average fuel usage rate exceeds the permit limit (37).





Authors: Gregg Rosenberg Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

#### Section VI. Equipment Monitoring:

- After the Relevant Information Questions are completely answered and depending on how the questions were answered, there may be one or more portions of this section that are not blacked out. The information will need to be entered in areas that are not blacked out except for the "Notes and Comments" area which will only need to be filled out to provide additional detailed information about the system that is not provided in another column.
- If not blacked out, the Yellow cell under "Required VEO Frequency" (38) needs to have a frequency selected of how often a visible emissions observation must be conducted.
- Similarly, if not blacked out, the Yellow cell under "Required Air Control Inspection Frequency" (39) needs to have a frequency selected. The required minimum inspection frequency is according to the frequency stated in the manufacturer's specifications. If the manufacturer's specifications do not state an inspection frequency or the air pollution control does not have any manufacturer's specifications, then it is strongly recommended that a minimum frequency of monthly inspections be conducted.
- If VEOs are required, the User must conduct a VEO at least once per required frequency. Under the "VEO Conducted?" column, each day must be answered with either "Yes" or "No" (40). If the answer is "Yes", then the corresponding cell in the following column titled, "Control Inspected?" will turn **Yellow** (41) indicating that the cell needs to be filled in too with either a "Yes" if opacity was seen during the VEO or "No" if no opacity was seen during the VEO.
- If the system has an add-on control, then there will more than likely be a requirement to inspect the air pollution control. If an air pollution control inspection is required, the User must inspect the control at least once per required frequency or a suggested minimum frequency of monthly if no required frequency is stated in the permit or manufacturer's specifications. Under the "Control Inspected?" column, each day must be answered with either "Yes" or "No" (42).
- At any point when a part of the system or air pollution control has a corrective action or maintenance performed on it, the date of the latest corrective action must be logged for each day (43). On that day of corrective action or maintenance Additional information must be provided in the corresponding cell in the following column, "Notes and Comments". This information should include what component is being worked on, completion date if corrective action or maintenance lasts longer than a single day, and it is suggested to include the work order identification number.
- The "Notes and Comments" column will always be visible, even if the system does not have any add-on controls nor VEO requirements. The User can enter any and all relevant information to this cell to help understand anything out of the ordinary that occurred on that date (44).



# BAPC – Compliance Branch Emissions Calculations Inventory Spreadsheet

**Guidance Document** 

Authors: Gregg Rosenberg Updated: 9/10/2024

# V. "SYSTEM" TAB (continued)

Section VI. Equipment Monitoring (continued):



#### Section VII. Current Year's Monthly and Annual Totals:

- After the Relevant Information Questions are completely answered and depending on how the questions were answered, there may be one or more portions of this section that are not blacked out. Most of the information is automatically filled in as daily records are entered.
- The first set of information that will need to be added is the annual limits for the applicable portions (45). NOTE: There are some rare instances where a material throughput or fuel usage limit does not have an annual limit. In those cases, the applicable columns can be hidden.



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The other cells that may need to be filled in are the units (46). However, these are more than likely already • going to be filled in when the units in the applicable daily records are selected. NOTE: It is recommended against modifying these units if automatically selected. Units DO NOT convert (e.g., pounds in the daily records will not convert to tons in annual records if the units are changed to "tons" in the Current Year's Monthly and Annual Totals section.).

v

v

7

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The cells in this section will turn **Red** if thy exceed the annual limit (47). • V W

	<u> </u>	*			~ ~		<u>-</u>	~~~	
1		4	5	Current Year's	Monthly and Ani	nual Totals			
		PermitAnnual			Permit Annual		Permit Annual		
2		Hourt	init	1000	Material Limit:		Fuel Limit:		
				Annual	Material	Annual		Annual Fuel	
3		Operatin	g Time	Operating Time	Processed	Processed Material		Usage	
			0	1 0			5		
4	Month	onth Hours			Select	Units	Solect Units		
		46			Tons				
5	January	10	D	100	lbs		0	0	
					Gallons				
6	February	10	D	200	ft^3		0	0	
7	March	11	D	310	Batches		0	0	
8	April	10	5	415	Minutes		0	0	
9	May	90		505			0	0	
10	June	50		555	0	0	0	0	
11	July	12	D	675	0	0	0	0	
12	August	10	D	775	0	0	0	0	
13	September	95		870	9	0	0	0	
14	October	12	0	990	47 )	0	0	0	
15	November	15	0	1140	0	0	0	0	
16	December	17	0	1310	0	0	0	0	
		· · · · · · · · · · · · · · · · · · ·							



Authors: Gregg Rosenberg Updated: 9/10/2024

### V. "SYSTEM" TAB (continued)

#### Section VIII. Special Case – Combined Limits:

• In some cases, the User may only need a portion of the template. The most common occurrence of this is when emission units or systems are required to record material throughputs and/or fuel usage separately and combined. When this is required, it is recommended to include an additional copy of the System Tab specifically for that recordkeeping condition (48). For this tab, the Relevant Information Questions section does not need to be filled out and everything except for the applicable columns can be hidden. Then, the equations in the applicable column can be modified to fit the need of the permit requirement (49).

	U	Х	Y	AB	AC		U	Х	Y	AB	AC
1	Current Year	's Monthly and A	nnual Totals			1	Current Year	's Monthly and A	nnual Totals		
-		Permit Annual						Permit Annual			
2		Material Limit:	153300			2		Material Limit:	306600		
		Material	Rolling Annual					Material	<b>Rolling Annual</b>		
3		Processed	Material			3		Processed	Material		
4	Month	То	ns			4	Month	То	ns		
5	January	10000	10000			5	January	25500	25500		
	,										
6	February	13000	23000			6	February	23050	48550		
7	March	12750	35750			7	March	21300	69850		
8	April	15000	50750			8	April	22250	92100		
9	May	15000	65750			9	May	26750	118850		
10	June	15500	81250			10	June	24000	142850		
11	July	12900	94150			11	July	25100	167950		
12	August	12150	106300			12	August	28000	195950		
13	September	10000	116300			13	September	27000	222950		
14	October	11050	127350			14	October	26500	249450		
15	November	5000	132350		48	15	November	25150	274600		
16	December	3000	135350			16	December	24000	298600		
1 7   <	> SETUP	System 3 (PF1.00	System 3 (PF1.0	04) Syst	em 3 (Combine	ed)	> SETUP	Setem 3 (PF1.003	3) System 3 (PF1.0	004) Svs	stem 3 (Combined)

