From: Sieffert, Margaret
To: kwagner@sterigenics.com
Subject: Sterigenics Modeling Parameters
Date: Wednesday, January 31, 2018 9:55:00 AM

Kevin,

Thank you again for agreeing to review the modeling information pertaining to the Willowbrook facility. Per our conversation, below are the questions to try and correct regarding the modeling parameters. We provided some information on the second building for your review but know that EPA only has all emissions coming from one of the buildings.

EPA used google earth to obtain these values. Let us know if Sterigenics is in agreement with them.
-For building #1's address (7775 Quincy St., Willow brook, IL), please verify building #1's corners (lat/long) and building height.
lat/long. Building height of 23.2 feet.
1. 41.748181; -87.939061
2. 41.748163; -87.939499
3. 41.748141; -87.939500
4. 41.748124; -87.940454
5. 41.748006; -87.940453
6. 41.748001; -87.940513
7. 41.747787; -87.940508
8. 41.747786; -87.940444
9. 41.747667; -87.940441
10. 41.747674; -87.939042

EPA would like to separate the emissions by building. Again we used google earth to obtain these values. For building #2's address (830 Midway Dr. Willowbrook, IL), please verify building #2's corners (lat/long) and building height:
lat/long Building height of 12.3 feet
1. 41.748865; -87.941666
2. 41.748877; -87.941221
3. 41.748956; -87.941226
4. 41.748945; -87.941667

Sterigenics/IEPA has the 6 listed stacks in the same location at the following lat/long located withing building #1's area: lat (41.747990) ; long (-87.939730). For modeling purposes, our modeler had to move these stacks 1.0 meter apart as shown below in the table. We are pretty sure that the stacks aren't located at these locations, so if you can provide the lat/long for each of the stacks, or if easier you can mark each stacks location for building 1 and 2 on a map (created using google maps or something similar) and share a screenshot. Also for modeling purposes, EPA has the facility operating 24/7 for 365 days but if this is incorrect, please let us know your annual operating hours.

For each stack that emits EtO, EPA needs the following information: stack lat/long, stack emission rate, stack height, stack exit temperature, stack flow rate, stack diameter, and if the stack is vertical or horizontal. Do you have process fugitive emissions not ducted to a vent or stack not listed in table below? Table below lists the input parameters we used in the modeling. The stack parameter information could be found in a permit application, a stack test, or from manufacturer specifications. With regard to the projected facility emissions after the back vent project, please provide the same information.

Unit ID	Process ID	Stack ID	Lat	Long	2014 Emission Rate (TPY)	Stack Height (m)	Stack Temperature (k)	Stack Exit Velocity (m/s)	Stack Diameter (m)	Vertical or Horizontal Stack?
39469613	45489714	Stack#1	41.747989	-87.939729	0.030576	12.192	308.15	2.29	0.229	V
39469713	45489614	Stack#2	41.747989	-87.939741	0.069888	12.192	308.15	2.29	0.229	V
39469813	45489514	Stack#3	41.747989	-87.939753	1.39776	12.497	310.90	4.69	0.372	V
39469913	45489414	Stack#4	41.747998	-87.939729	0.6552	12.497	310.90	4.69	0.372	V
39470013	45489314	Stack#5	41.748007	-87.939729	0.00056784	10.058	293.00	11.14	0.914	V

39470113	45489214	Stack#6	41.74798	-87.939729	0.62899	12.912	308.15	2.29	0.229	V

Finally, could you provide a property boundary of the facility that includes both buildings? This could be as simple as marking up a map (created using google maps or something similar) and sharing a screenshot.

Not sure how long this will take you to review, but suggests a potential completion date of February 23. If you need additional time, please let me know. Thank you again for your assistance in reviewing the modeling parameters and please don't hesitate to email or call me if you have any questions,

Margaret

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