Casename **Case 34**

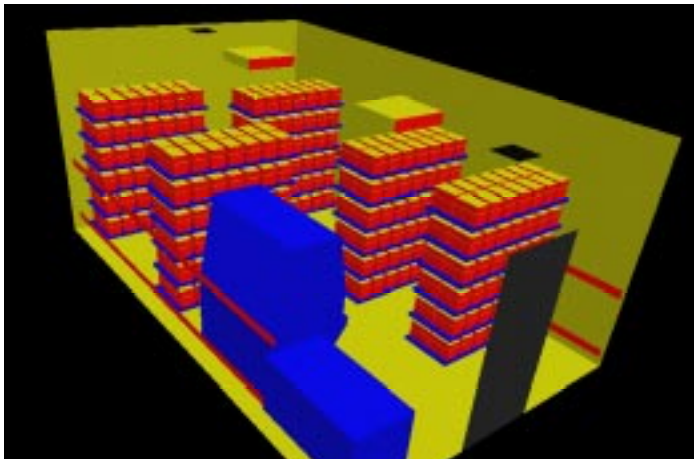
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	17.5	66%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.36	70.45	1896	67.24%
S.D.	0.27	0.49	374	2.62%
Max.	22.02	71.63	2689	72.42%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.01	1.92	2.96	5.66	9.63	14.34	21.65	26.77	31.90	34.00
Max.	1.44	2.72	4.20	8.03	13.66	20.34	30.71	37.96	45.24	48.23

Room Breathing Zone

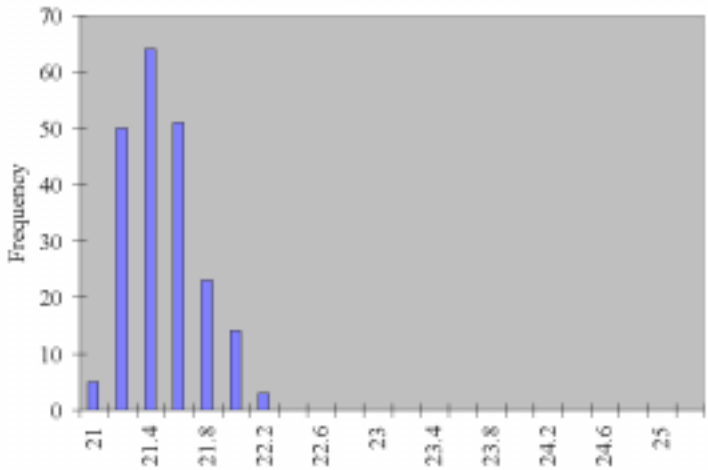
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.96	67.93	136	57.48%
S.D.	0.93	1.67	56	
Max.	26.86	80.35	318	

Room Breathing Zone NH3 (ppm)

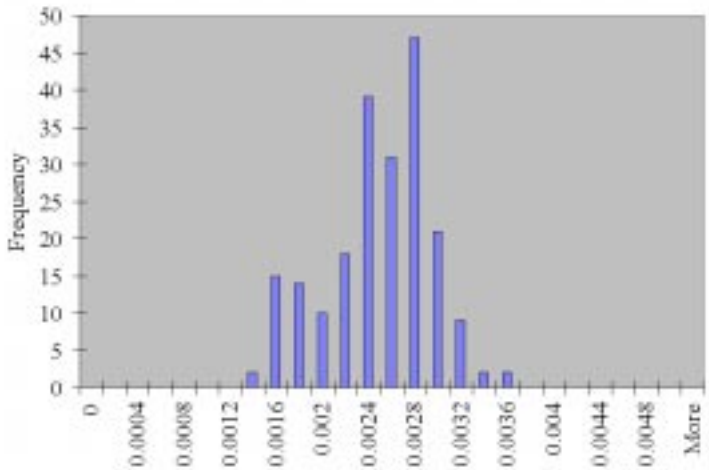
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.07	0.14	0.21	0.41	0.69	1.03	1.55	1.92	2.29	2.44
Max.	0.17	0.32	0.50	0.95	1.61	2.40	3.63	4.49	5.35	5.70

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



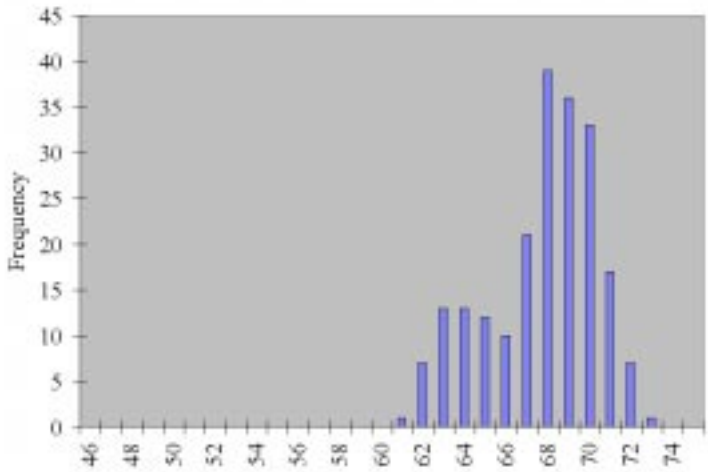
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	419
2	785000	795
3	785000	1225
4	785000	2346
5	785000	3988
6	785000	5938
7	785000	8966
8	785000	11085
9	785000	13210
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 35**

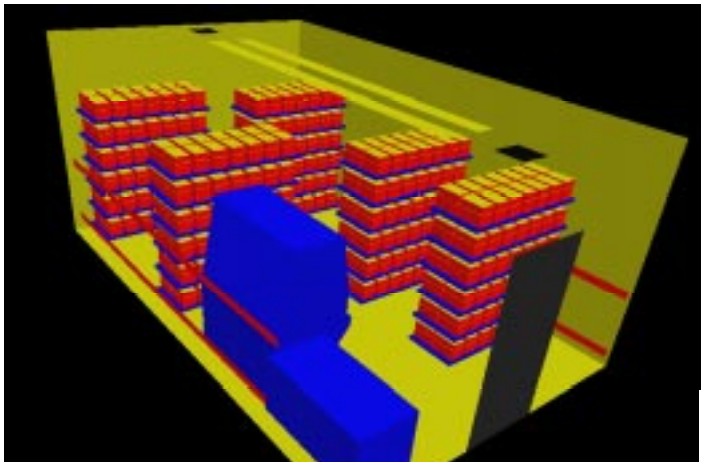
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	17.5	66%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.33	70.40	1761	65.51%
S.D.	0.47	0.84	403	2.79%
Max.	22.43	72.37	2691	71.14%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.93	1.78	2.75	4.90	8.01	11.77	17.46	21.92	26.67	29.69
Max.	1.43	2.72	4.20	7.49	12.24	17.99	26.70	33.51	40.76	45.38

Room Breathing Zone

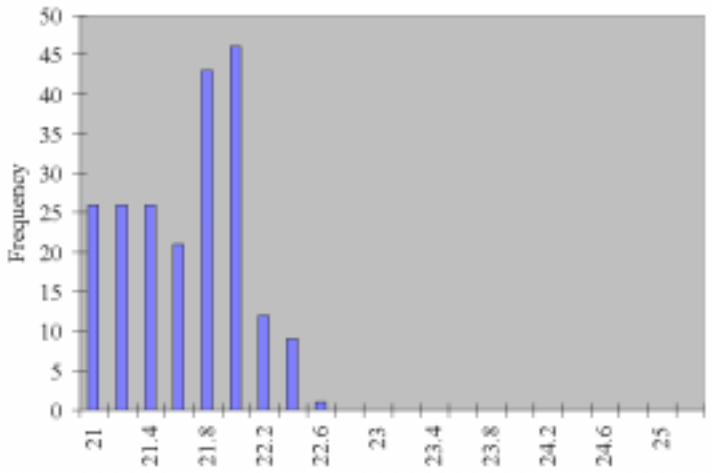
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.96	67.92	122	57.37%
S.D.	1.01	1.82	59	
Max.	25.93	78.67	291	

Room Breathing Zone NH3 (ppm)

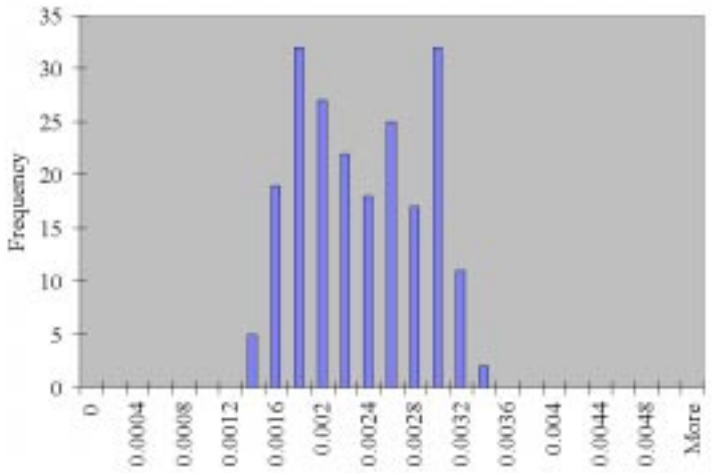
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.06	0.12	0.19	0.34	0.56	0.82	1.21	1.52	1.85	2.06
Max.	0.15	0.29	0.45	0.81	1.32	1.95	2.89	3.63	4.41	4.91

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



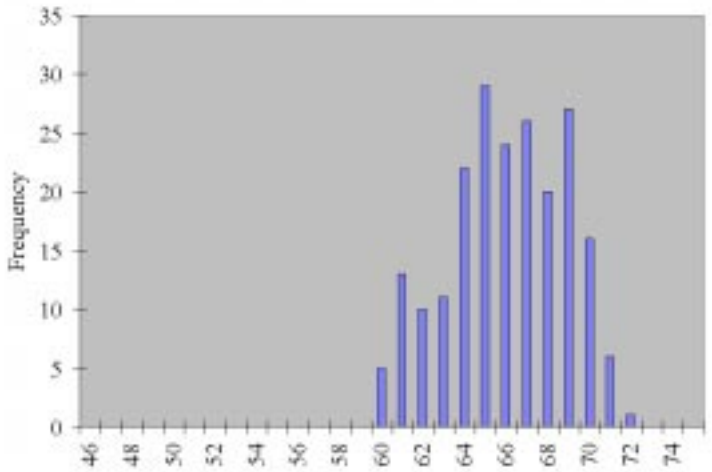
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	416
2	785000	795
3	785000	1225
4	785000	2185
5	785000	3571
6	785000	5246
7	785000	7787
8	785000	9774
9	785000	11889
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 36**

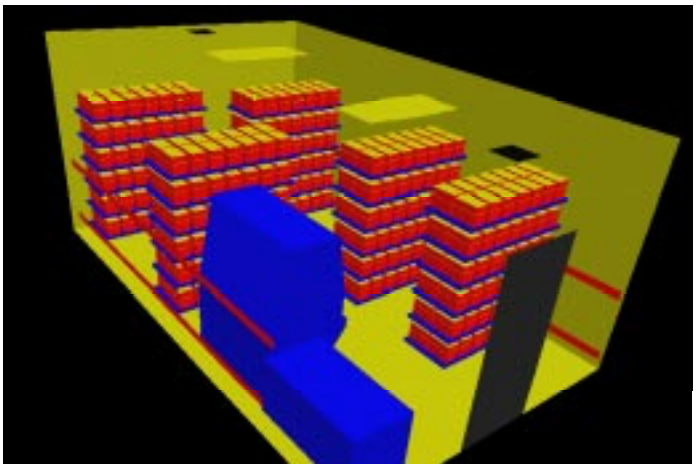
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	17.5	66%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.47	70.64	1878	66.47%
S.D.	0.27	0.49	351	2.61%
Max.	22.20	71.97	2594	71.66%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.00	1.90	2.93	5.44	9.09	13.47	20.19	25.12	30.19	32.78
Max.	1.38	2.63	4.05	7.51	12.56	18.60	27.88	34.69	41.70	45.28

Room Breathing Zone

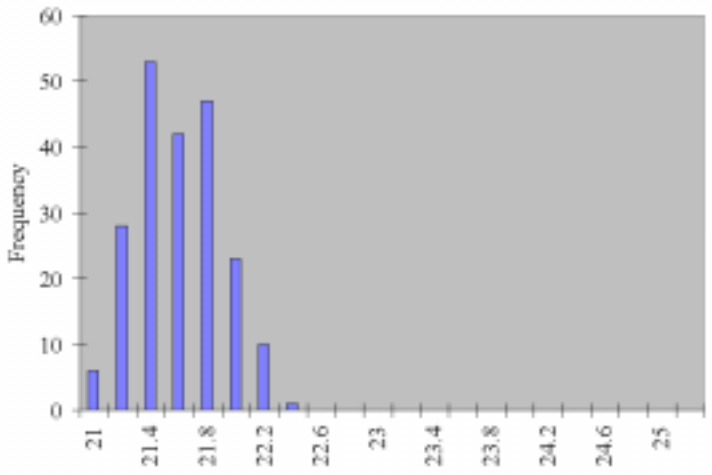
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.90	67.81	134	57.69%
S.D.	0.97	1.74	59	
Max.	25.63	78.13	303	

Room Breathing Zone NH3 (ppm)

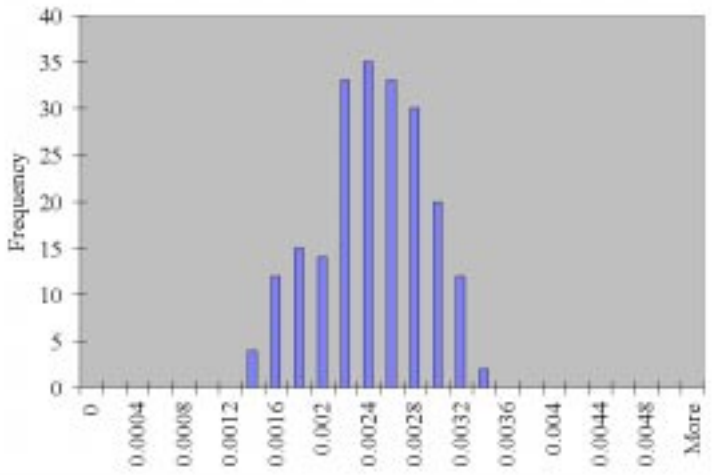
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.07	0.14	0.21	0.39	0.65	0.96	1.44	1.79	2.15	2.34
Max.	0.16	0.31	0.47	0.88	1.47	2.18	3.26	4.06	4.88	5.30

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



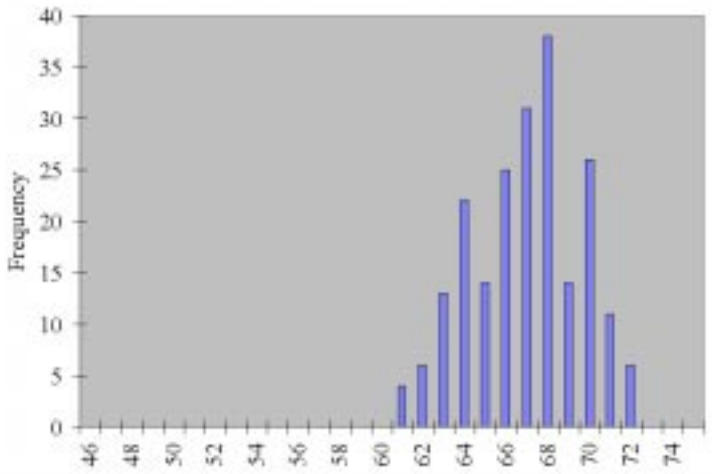
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	418
2	785000	795
3	785000	1225
4	785000	2274
5	785000	3802
6	785000	5629
7	785000	8439
8	785000	10500
9	785000	12620
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 37**

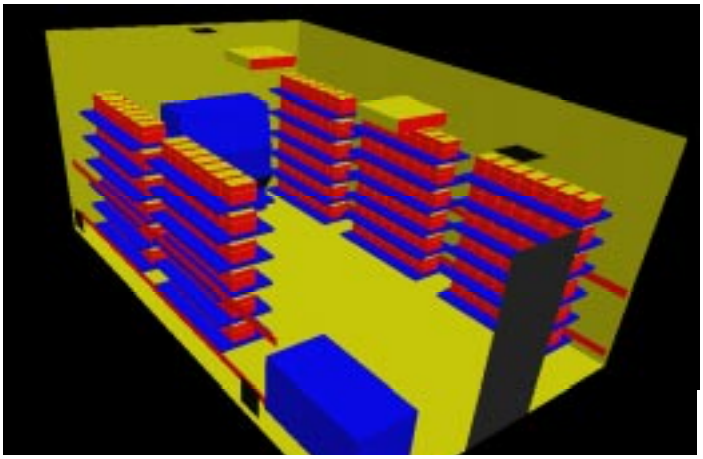
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling/Low 50/50	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.27	72.08	1715	62.35%
S.D.	0.24	0.44	302	2.42%
Max.	23.04	73.48	2244	66.63%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.90	1.74	2.68	4.13	6.14	8.70	12.31	16.12	20.70	25.55
Max.	1.17	2.27	3.50	5.41	8.03	11.38	16.10	21.09	27.08	33.42

Room Breathing Zone

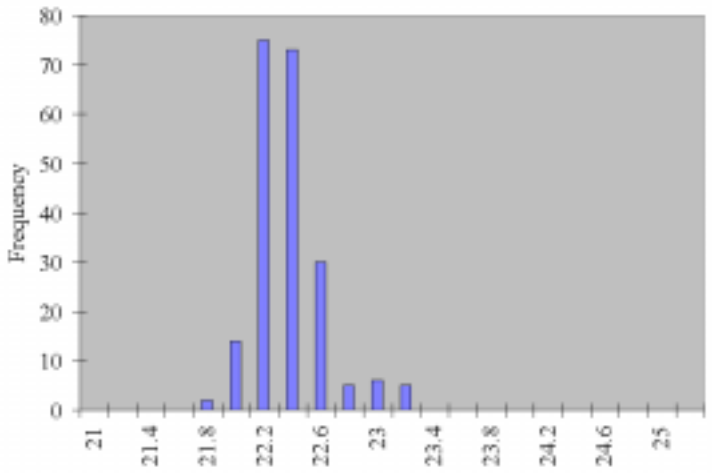
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.70	69.25	59	54.16%
S.D.	0.22	0.40	26	
Max.	21.76	71.16	178	

Room Breathing Zone NH3 (ppm)

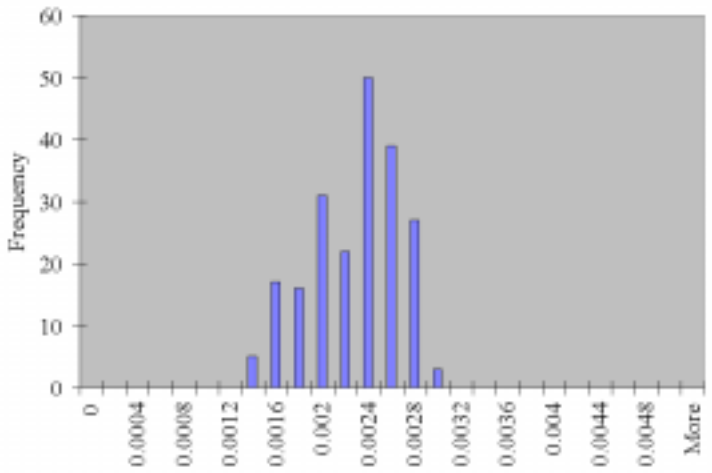
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.14	0.21	0.30	0.42	0.55	0.71	0.87
Max.	0.09	0.18	0.28	0.43	0.64	0.90	1.28	1.68	2.15	2.66

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



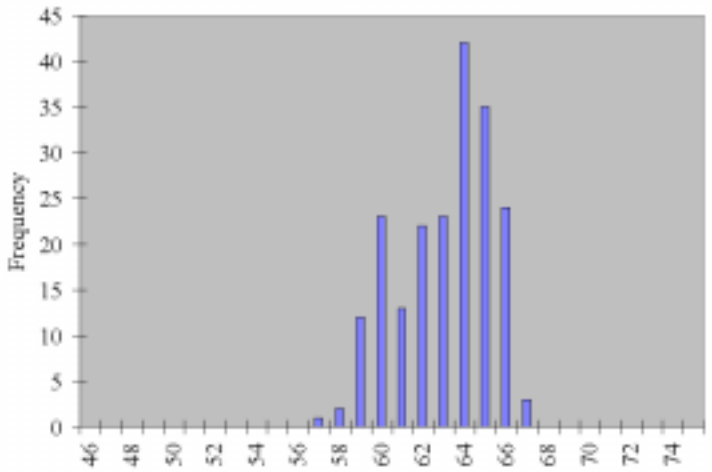
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	411
2	785000	795
3	785000	1225
4	785000	1891
5	785000	2808
6	785000	3983
7	785000	5632
8	785000	7379
9	785000	9473
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 38**

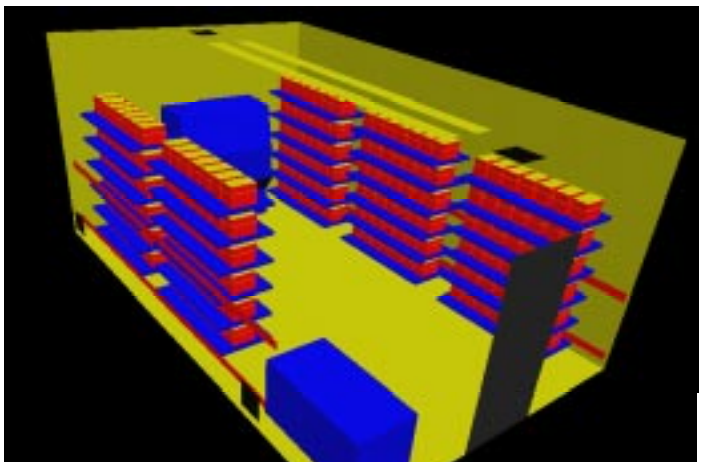
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	Ceiling/Low 50/50	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.39	72.29	1776	62.36%
S.D.	0.29	0.53	342	2.50%
Max.	23.31	73.96	2666	68.62%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.93	1.80	2.77	4.28	6.36	9.02	12.75	16.71	21.45	26.46
Max.	1.39	2.70	4.16	6.42	9.54	13.54	19.15	25.08	32.19	39.73

Room Breathing Zone

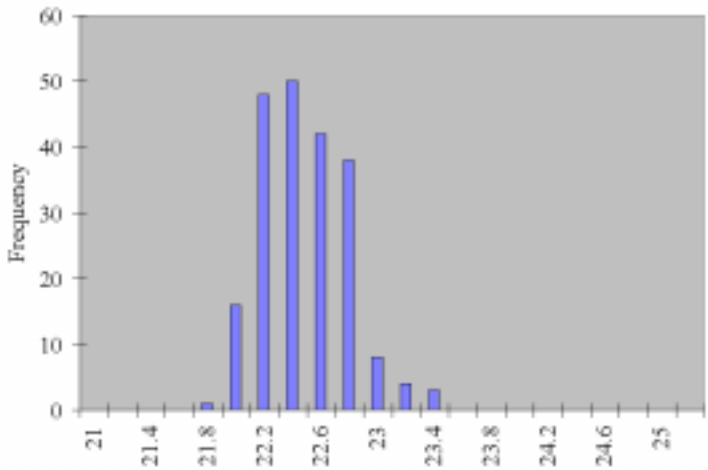
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.77	69.38	62	53.95%
S.D.	0.26	0.47	21	
Max.	22.03	71.66	197	

Room Breathing Zone NH3 (ppm)

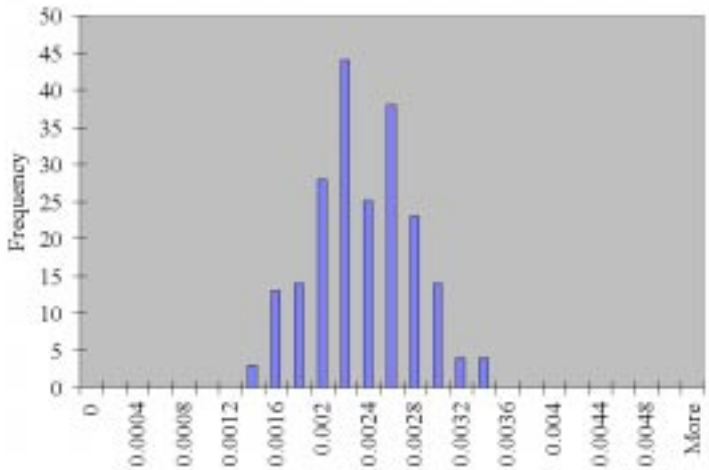
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.10	0.15	0.22	0.32	0.45	0.59	0.75	0.93
Max.	0.10	0.20	0.31	0.47	0.70	1.00	1.41	1.85	2.38	2.93

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



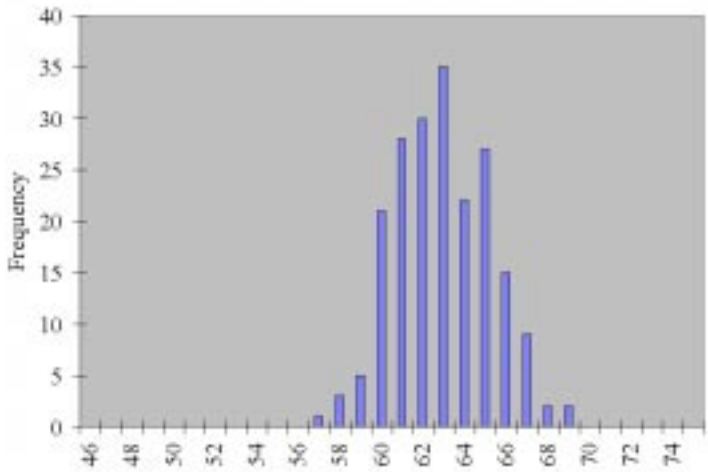
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	411
2	785000	795
3	785000	1225
4	785000	1892
5	785000	2811
6	785000	3986
7	785000	5639
8	785000	7386
9	785000	9481
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 39**

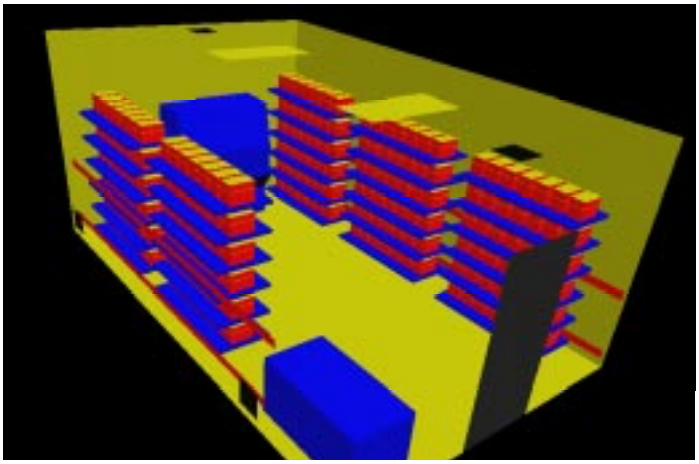
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	Ceiling/Low 50/50	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.39	72.30	1848	62.92%
S.D.	0.26	0.47	331	2.51%
Max.	23.14	73.65	2684	68.59%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.97	1.87	2.88	4.58	6.94	9.92	14.18	18.39	23.33	28.19
Max.	1.41	2.72	4.19	6.65	10.08	14.40	20.59	26.72	33.89	40.94

Room Breathing Zone

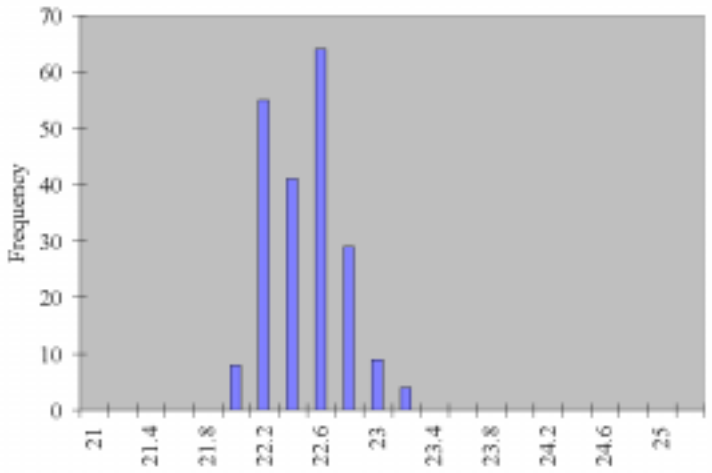
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.77	69.38	71	54.02%
S.D.	0.33	0.60	31	
Max.	22.24	72.03	249	

Room Breathing Zone NH3 (ppm)

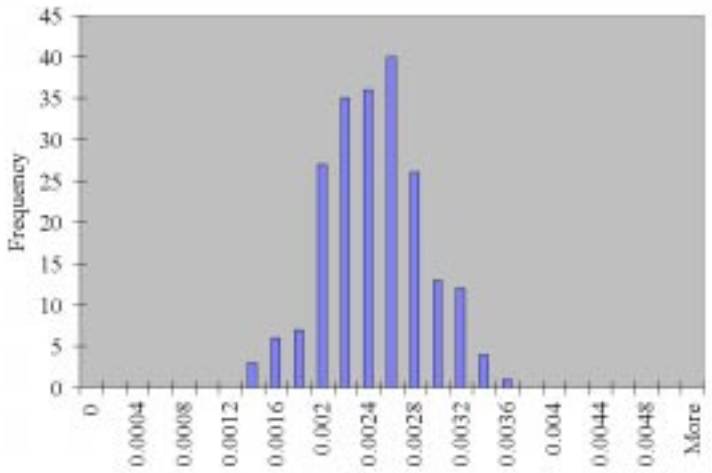
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.11	0.18	0.27	0.38	0.55	0.71	0.90	1.08
Max.	0.13	0.25	0.39	0.62	0.94	1.34	1.91	2.48	3.15	3.80

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



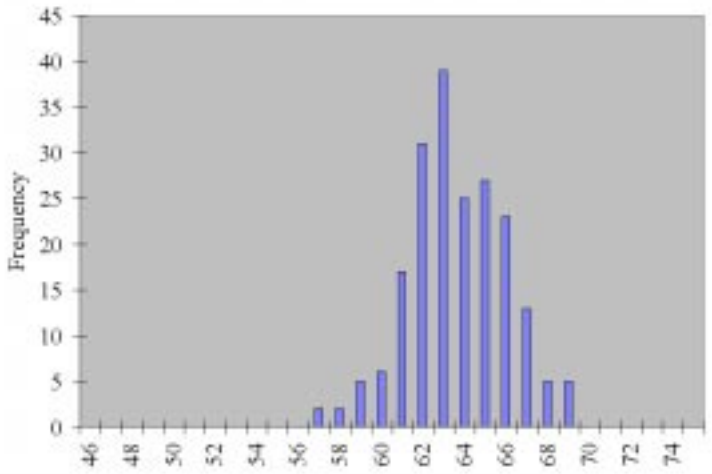
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	412
2	785000	795
3	785000	1225
4	785000	1944
5	785000	2947
6	785000	4212
7	785000	6023
8	785000	7813
9	785000	9911
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 40**

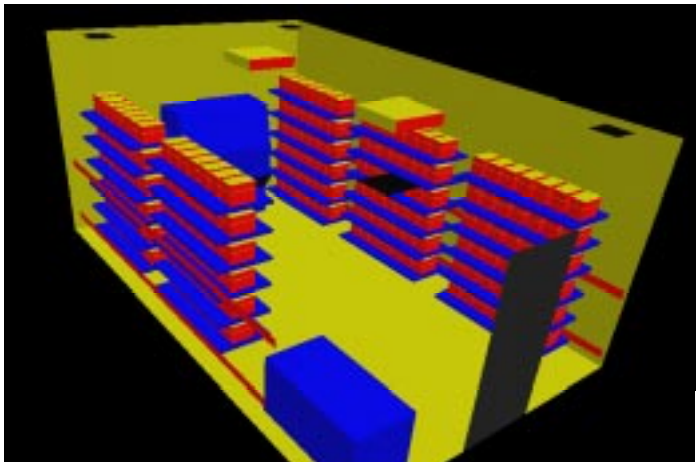
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.18	71.92	1975	64.79%
S.D.	0.30	0.54	326	2.55%
Max.	23.11	73.60	2778	70.34%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.04	2.00	3.08	5.33	8.55	12.48	18.36	23.22	28.53	32.42
Max.	1.47	2.81	4.34	7.50	12.02	17.55	25.82	32.66	40.12	45.60

Room Breathing Zone

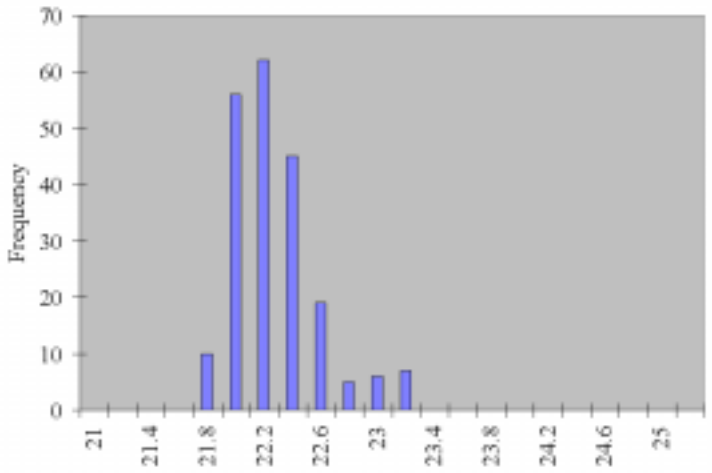
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.54	68.97	21	54.36%
S.D.	0.25	0.45	9	
Max.	21.53	70.75	85	

Room Breathing Zone NH3 (ppm)

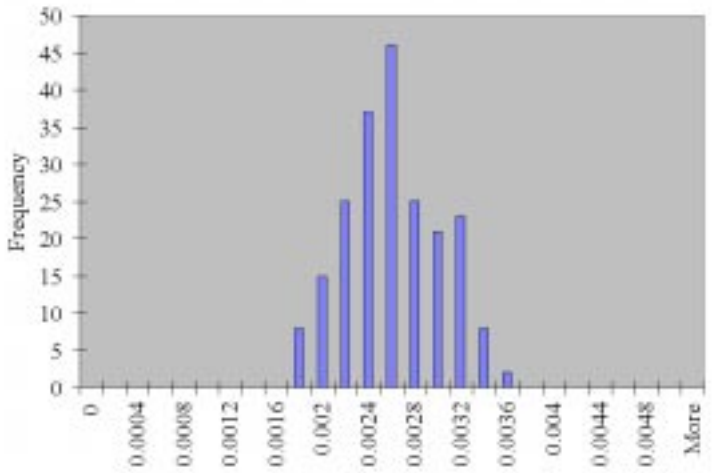
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.01	0.02	0.03	0.06	0.09	0.13	0.20	0.25	0.31	0.35
Max.	0.05	0.09	0.13	0.23	0.37	0.54	0.79	1.00	1.23	1.40

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



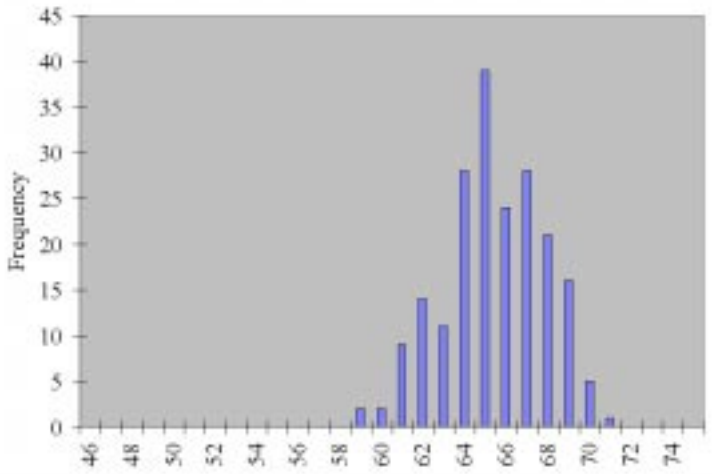
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2118
5	785000	3396
6	785000	4957
7	785000	7294
8	785000	9227
9	785000	11337
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 41**

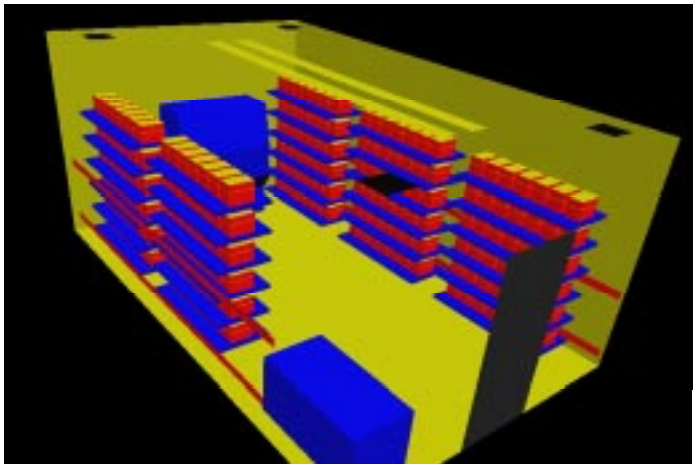
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	Ceiling x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.23	72.02	1690	62.28%
S.D.	0.26	0.47	298	2.30%
Max.	22.88	73.19	2381	67.44%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.88	1.71	2.64	4.06	6.01	8.51	12.02	15.77	20.28	25.10
Max.	1.25	2.41	3.71	5.72	8.47	11.99	16.93	22.21	28.56	35.36

Room Breathing Zone

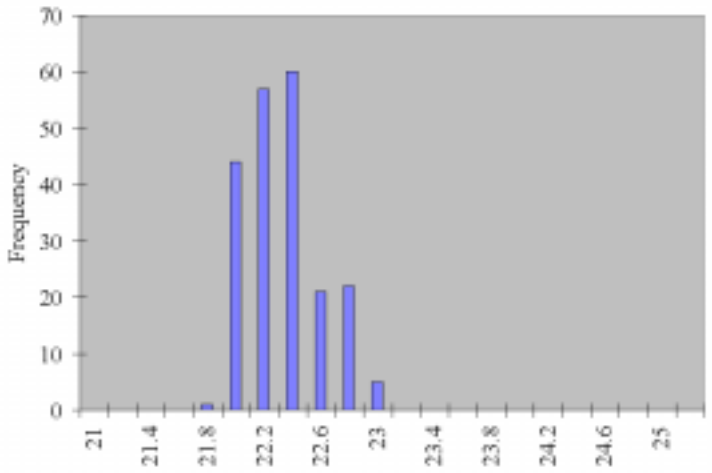
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.54	68.96	51	54.65%
S.D.	0.16	0.29	23	
Max.	21.58	70.84	140	

Room Breathing Zone NH3 (ppm)

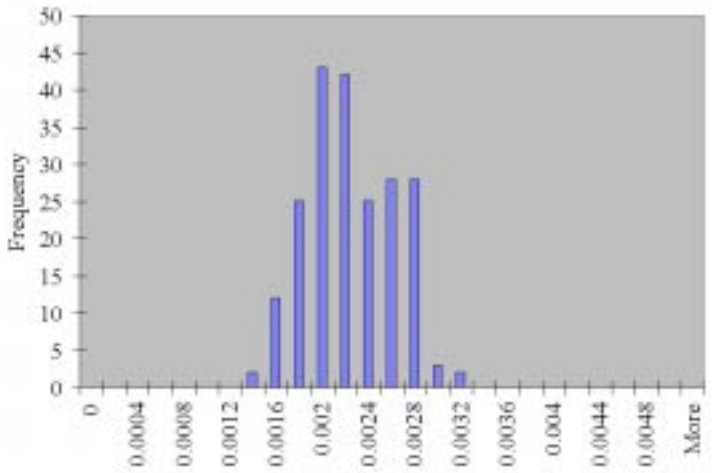
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.08	0.12	0.18	0.26	0.36	0.47	0.61	0.75
Max.	0.07	0.14	0.22	0.34	0.50	0.70	0.99	1.30	1.68	2.08

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



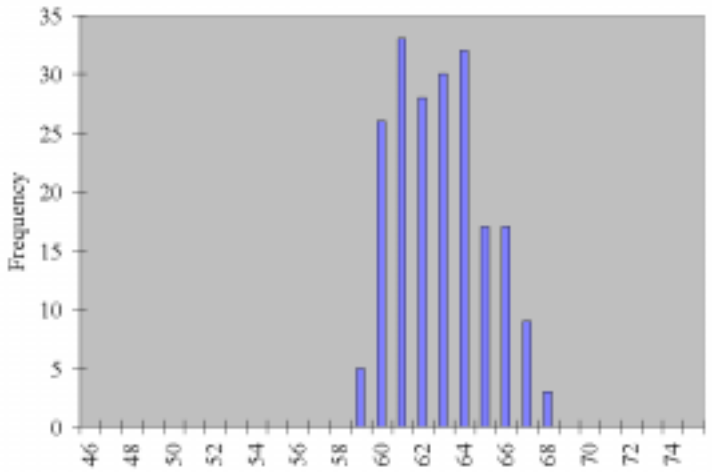
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	411
2	785000	795
3	785000	1225
4	785000	1885
5	785000	2791
6	785000	3954
7	785000	5584
8	785000	7325
9	785000	9419
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 42**

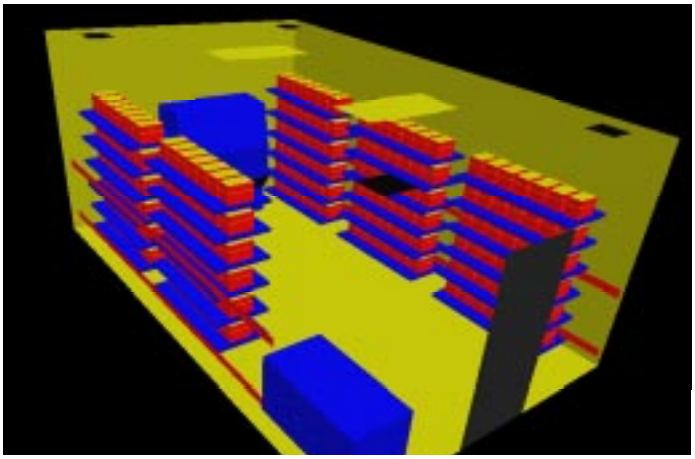
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	Ceiling x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.19	71.93	1728	62.77%
S.D.	0.24	0.44	326	2.64%
Max.	22.86	73.15	2535	69.49%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.91	1.75	2.70	4.25	6.41	9.14	13.03	16.94	21.56	26.19
Max.	1.33	2.57	3.96	6.23	9.40	13.40	19.11	24.86	31.63	38.42

Room Breathing Zone

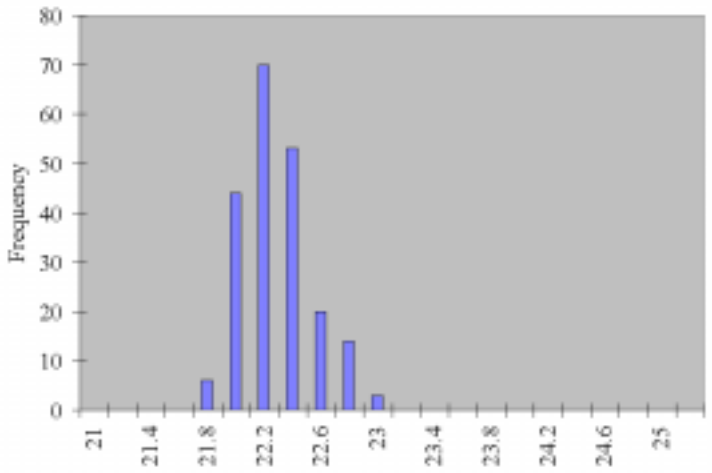
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.53	68.95	63	54.79%
S.D.	0.24	0.44	26	
Max.	21.53	70.75	189	

Room Breathing Zone NH3 (ppm)

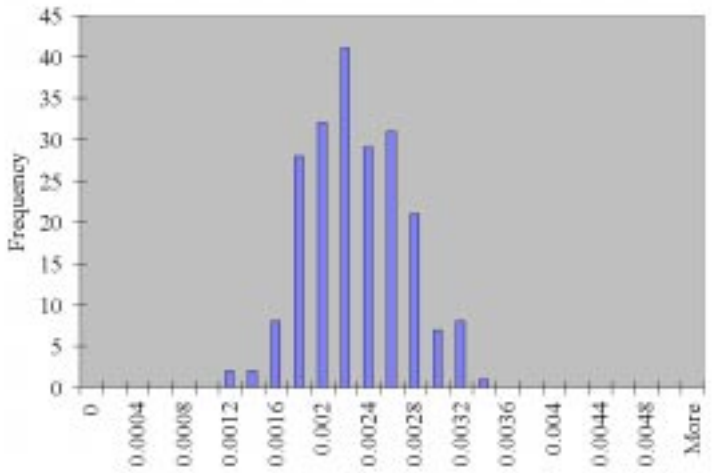
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.10	0.16	0.23	0.33	0.48	0.62	0.79	0.96
Max.	0.10	0.19	0.30	0.47	0.70	1.00	1.43	1.85	2.36	2.87

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



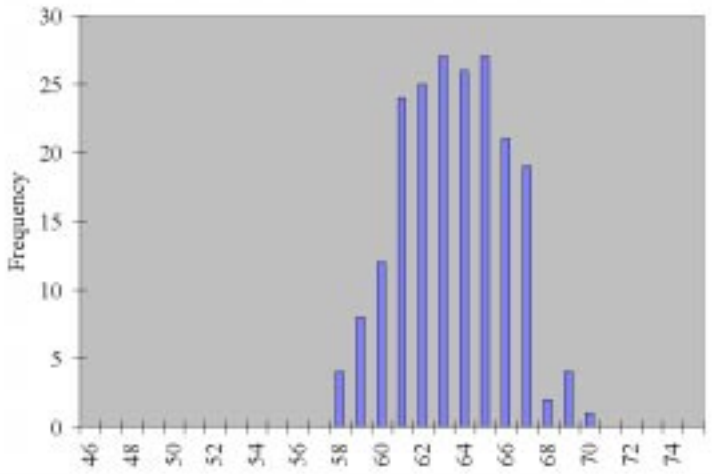
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	411
2	785000	795
3	785000	1225
4	785000	1930
5	785000	2910
6	785000	4151
7	785000	5919
8	785000	7698
9	785000	9795
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 43**

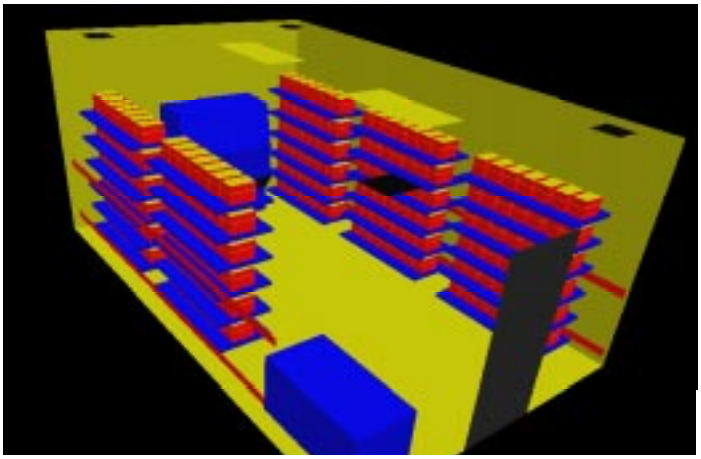
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind (rot 90°)	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.00	71.59	1855	64.56%
S.D.	0.23	0.41	271	2.03%
Max.	22.56	72.61	2429	69.24%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.98	1.88	2.90	4.96	7.90	11.50	16.87	21.40	26.38	30.19
Max.	1.28	2.46	3.79	6.49	10.34	15.06	22.09	28.02	34.54	39.52

Room Breathing Zone

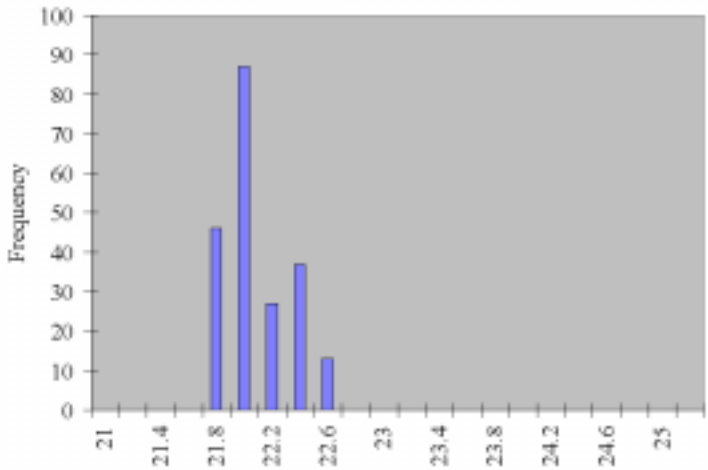
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.24	68.44	65	55.81%
S.D.	0.22	0.39	23	
Max.	21.94	71.49	164	

Room Breathing Zone NH3 (ppm)

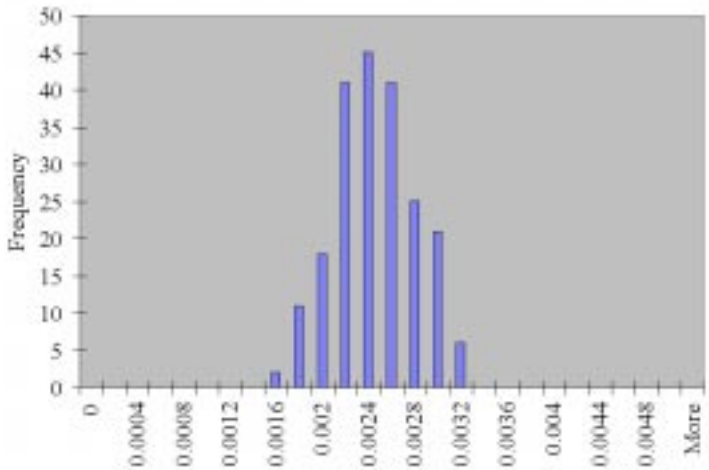
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.07	0.10	0.17	0.28	0.40	0.59	0.75	0.93	1.06
Max.	0.09	0.17	0.26	0.44	0.70	1.01	1.49	1.89	2.33	2.66

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



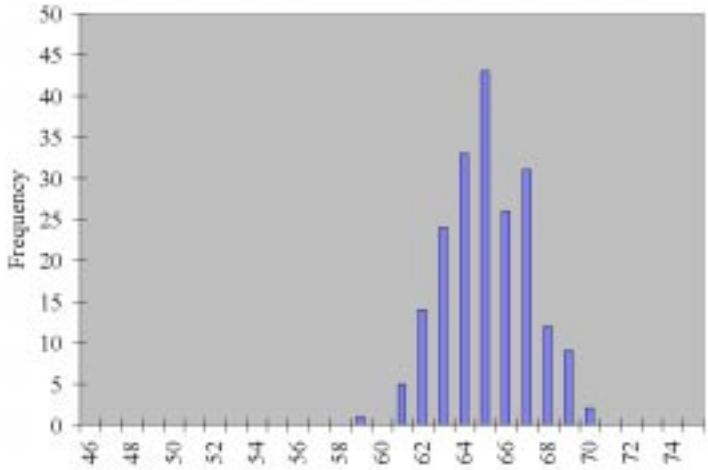
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2097
5	785000	3342
6	785000	4867
7	785000	7139
8	785000	9054
9	785000	11163
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 44**

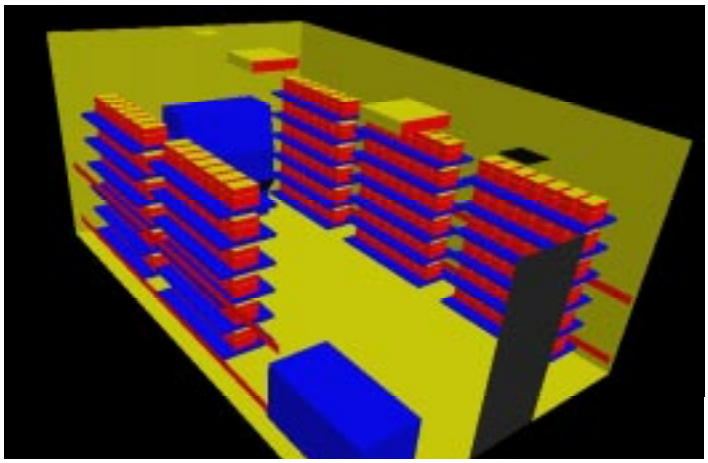
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial (rot 90°)	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.16	71.89	2118	66.03%
S.D.	0.29	0.52	286	2.26%
Max.	22.97	73.35	2732	71.46%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.13	2.14	3.31	6.03	9.97	14.71	21.96	27.43	33.15	36.40
Max.	1.45	2.77	4.26	7.77	12.86	18.98	28.33	35.38	42.75	46.95

Room Breathing Zone

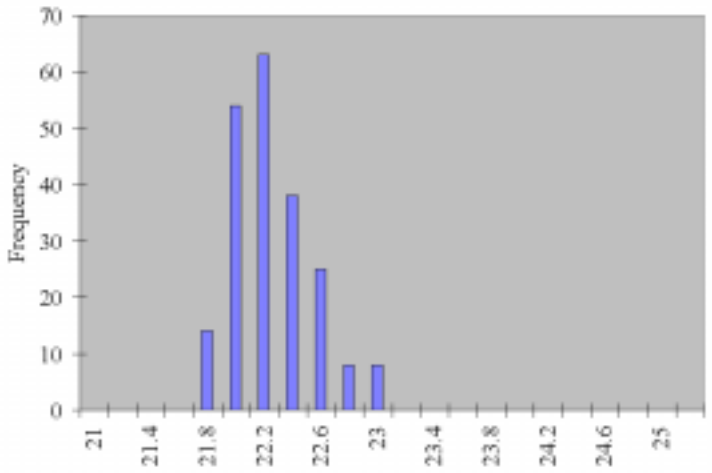
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.45	68.80	74	55.17%
S.D.	0.21	0.38	35	
Max.	21.87	71.36	237	

Room Breathing Zone NH3 (ppm)

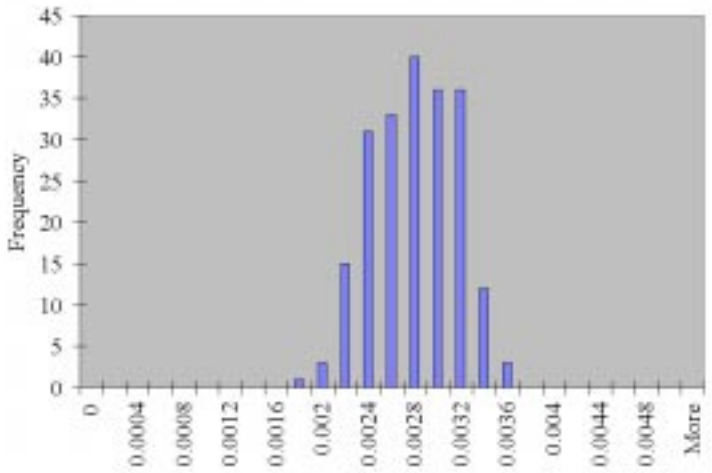
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.11	0.21	0.35	0.51	0.76	0.95	1.15	1.27
Max.	0.13	0.24	0.37	0.67	1.11	1.65	2.46	3.07	3.71	4.07

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



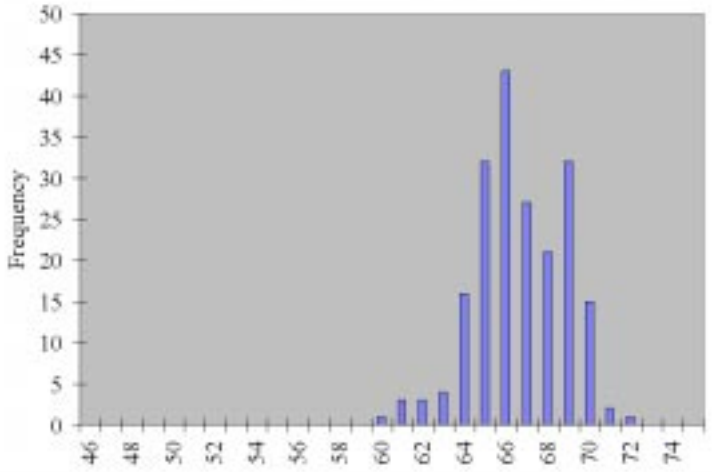
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	417
2	785000	795
3	785000	1225
4	785000	2233
5	785000	3696
6	785000	5454
7	785000	8140
8	785000	10167
9	785000	12285
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 45**

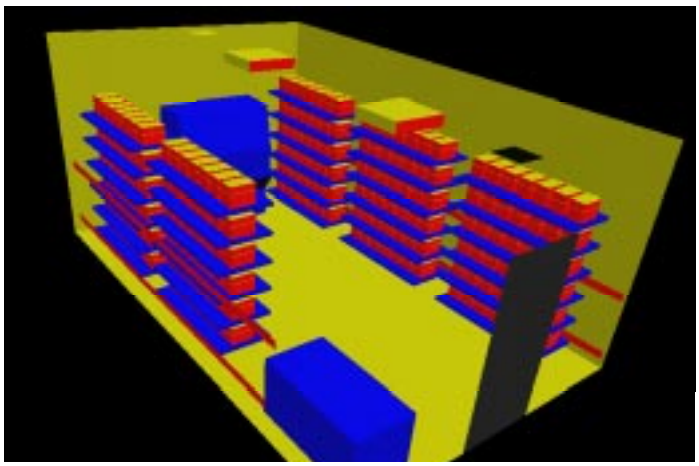
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 50cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.06	71.72	1929	64.88%
S.D.	0.27	0.48	325	2.55%
Max.	22.92	73.26	2681	69.79%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.02	1.95	3.01	5.22	8.40	12.27	18.08	22.84	28.03	31.77
Max.	1.42	2.71	4.18	7.26	11.68	17.06	25.13	31.76	38.96	44.16

Room Breathing Zone

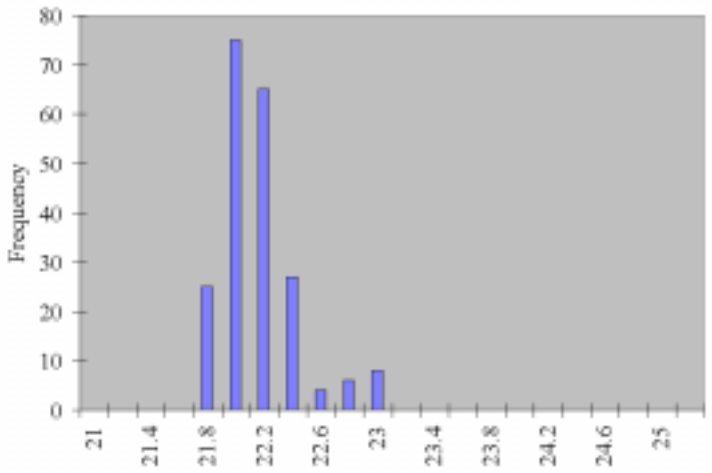
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.27	68.48	52	55.61%
S.D.	0.20	0.37	23	
Max.	21.74	71.14	246	

Room Breathing Zone NH3 (ppm)

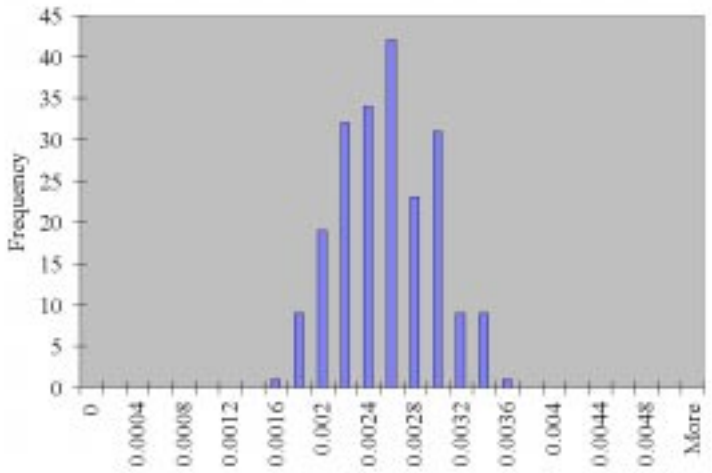
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.08	0.14	0.23	0.33	0.49	0.62	0.76	0.86
Max.	0.13	0.25	0.38	0.67	1.07	1.56	2.30	2.91	3.57	4.05

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



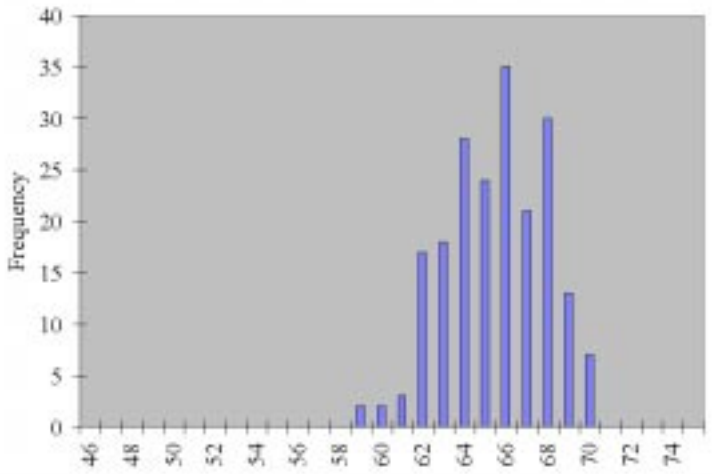
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2127
5	785000	3419
6	785000	4995
7	785000	7358
8	785000	9298
9	785000	11408
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 46**

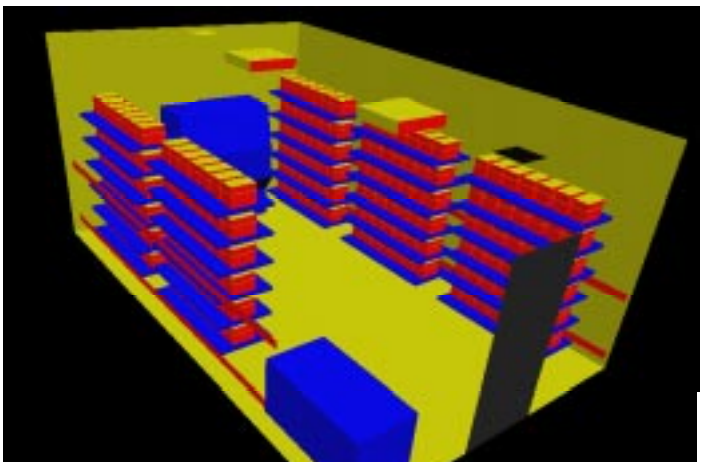
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neutral

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.00	71.61	1943	65.24%
S.D.	0.29	0.52	346	2.71%
Max.	22.91	73.24	2746	71.02%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.03	1.97	3.03	5.35	8.68	12.72	18.82	23.69	28.92	32.44
Max.	1.45	2.78	4.28	7.56	12.26	17.97	26.60	33.48	40.87	45.84

Room Breathing Zone

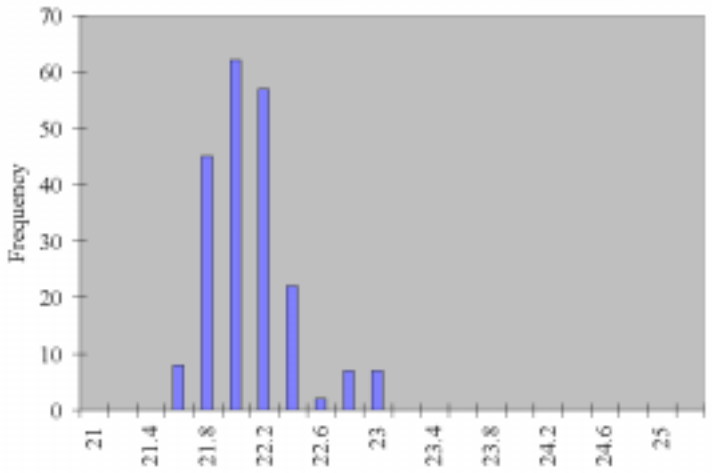
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.16	68.29	43	55.89%
S.D.	0.23	0.41	18	
Max.	20.82	69.48	200	

Room Breathing Zone NH3 (ppm)

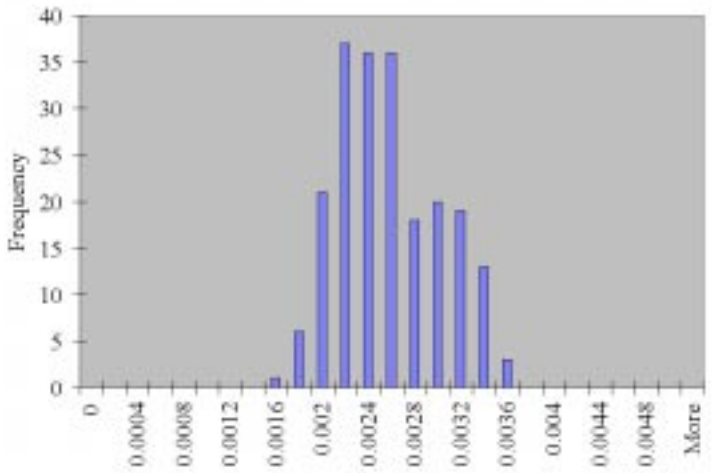
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.02	0.04	0.07	0.12	0.19	0.28	0.42	0.53	0.64	0.72
Max.	0.11	0.20	0.31	0.55	0.89	1.31	1.94	2.44	2.98	3.34

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



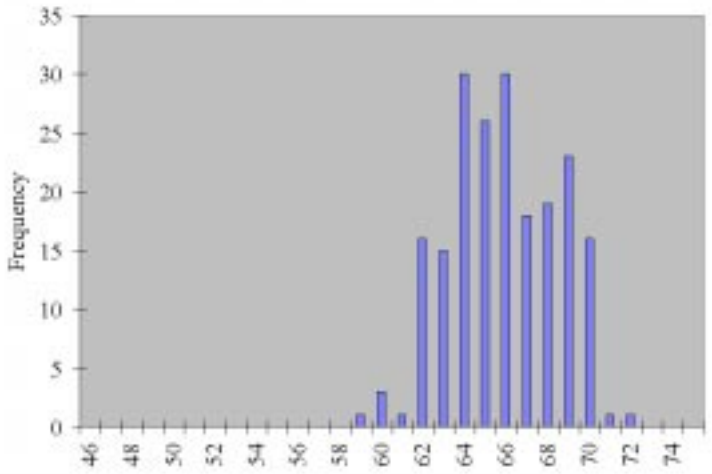
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	416
2	785000	795
3	785000	1225
4	785000	2160
5	785000	3506
6	785000	5139
7	785000	7604
8	785000	9571
9	785000	11684
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 47**

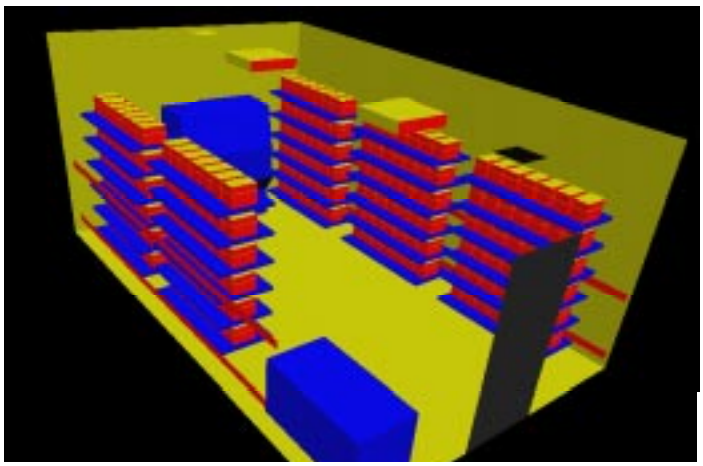
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	pos 50cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.08	71.74	1961	65.09%
S.D.	0.31	0.55	363	2.81%
Max.	23.03	73.46	2805	70.99%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.04	1.98	3.06	5.36	8.67	12.68	18.73	23.62	28.89	32.55
Max.	1.48	2.84	4.38	7.67	12.40	18.15	26.80	33.79	41.34	46.57

Room Breathing Zone

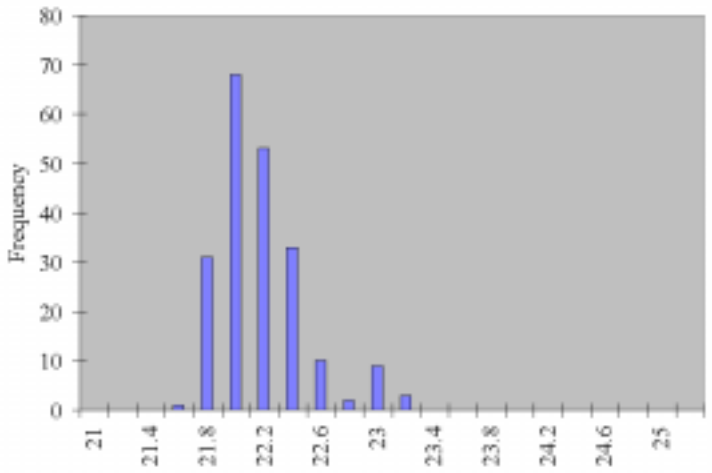
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.26	68.46	40	55.53%
S.D.	0.23	0.41	16	
Max.	20.93	69.68	176	

Room Breathing Zone NH3 (ppm)

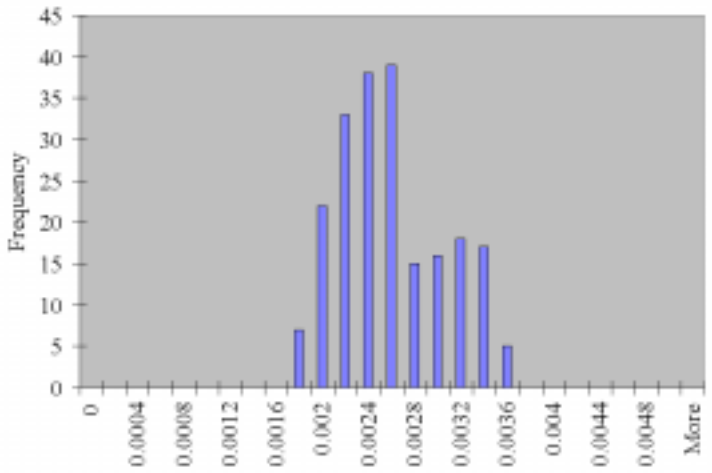
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.02	0.04	0.06	0.11	0.18	0.26	0.38	0.48	0.58	0.66
Max.	0.09	0.18	0.27	0.48	0.78	1.14	1.68	2.12	2.59	2.92

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



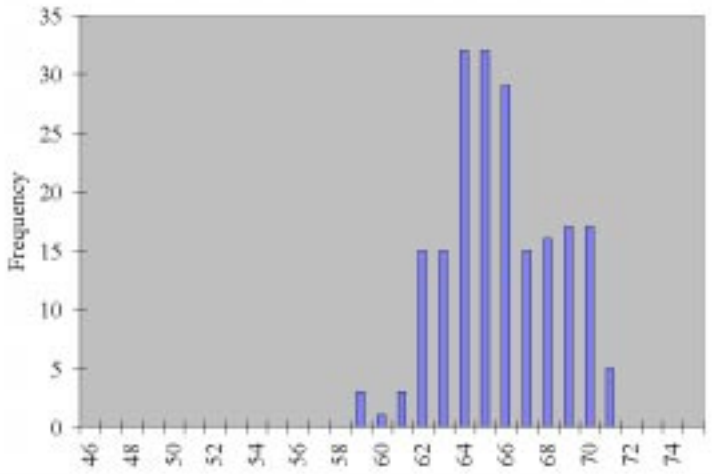
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2146
5	785000	3470
6	785000	5079
7	785000	7501
8	785000	9456
9	785000	11568
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 48**

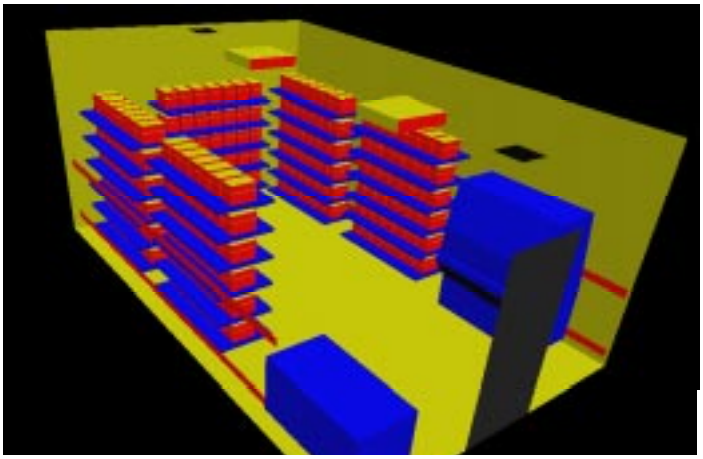
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON (swapped with r	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.11	71.80	2099	66.07%
S.D.	0.21	0.38	368	2.74%
Max.	22.62	72.72	2715	70.68%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.12	2.12	3.28	5.98	9.91	14.62	21.83	27.26	32.92	36.12
Max.	1.44	2.75	4.24	7.73	12.81	18.91	28.23	35.25	42.58	46.71

Room Breathing Zone

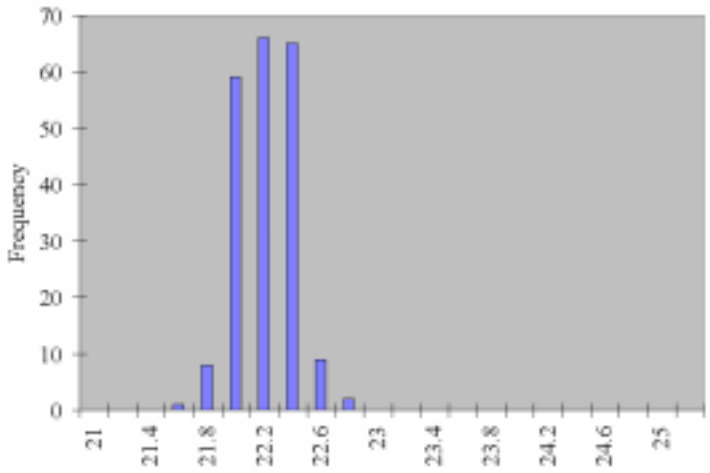
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.61	69.09	65	54.53%
S.D.	0.52	0.93	44	
Max.	25.89	78.59	302	

Room Breathing Zone NH3 (ppm)

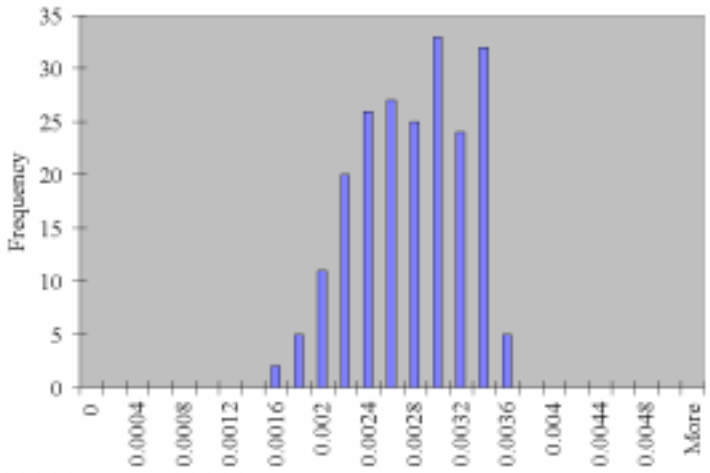
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.07	0.10	0.18	0.30	0.45	0.67	0.84	1.01	1.11
Max.	0.16	0.31	0.47	0.86	1.42	2.10	3.14	3.92	4.73	5.19

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



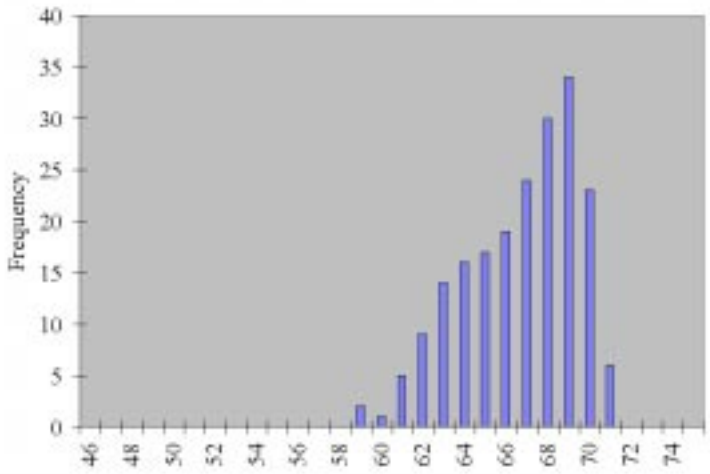
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	417
2	785000	795
3	785000	1225
4	785000	2237
5	785000	3704
6	785000	5468
7	785000	8165
8	785000	10195
9	785000	12313
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 49**

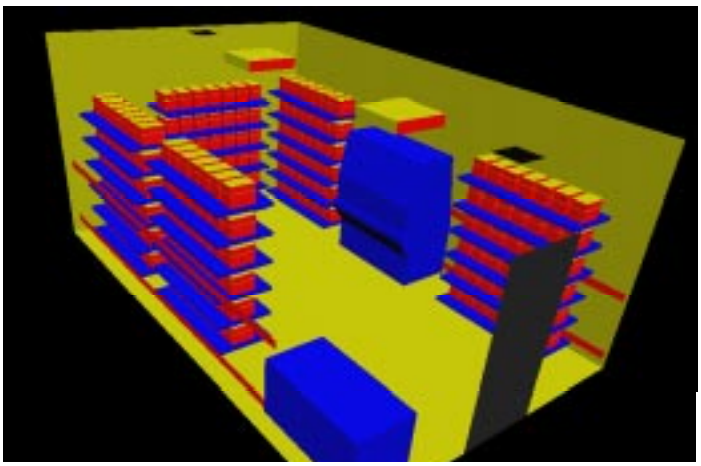
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON (swapped with r	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.18	71.92	2025	65.20%
S.D.	0.22	0.39	351	2.99%
Max.	23.20	73.77	2683	69.92%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.07	2.05	3.16	5.56	9.02	13.21	19.54	24.61	30.06	33.76
Max.	1.42	2.72	4.19	7.37	11.95	17.51	25.89	32.60	39.82	44.72

Room Breathing Zone

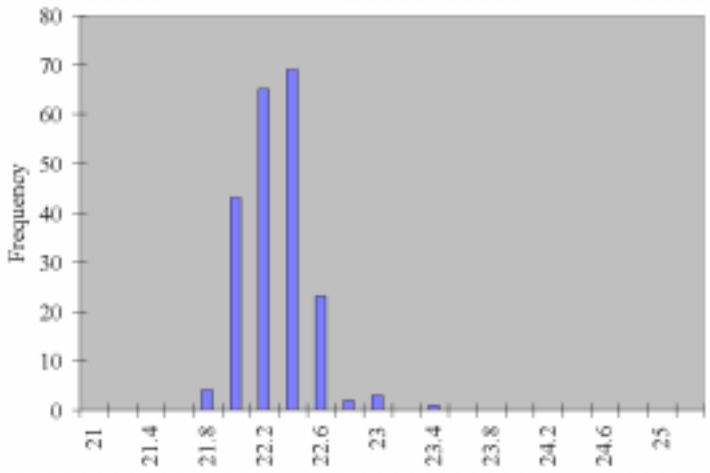
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.55	68.98	52	54.62%
S.D.	0.56	1.02	39	
Max.	26.07	78.93	246	

Room Breathing Zone NH3 (ppm)

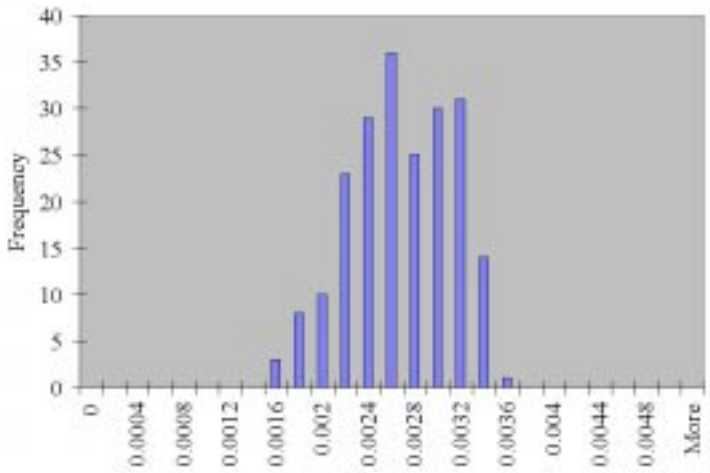
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.08	0.14	0.23	0.34	0.50	0.63	0.77	0.86
Max.	0.13	0.25	0.38	0.68	1.10	1.61	2.38	3.00	3.66	4.11

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



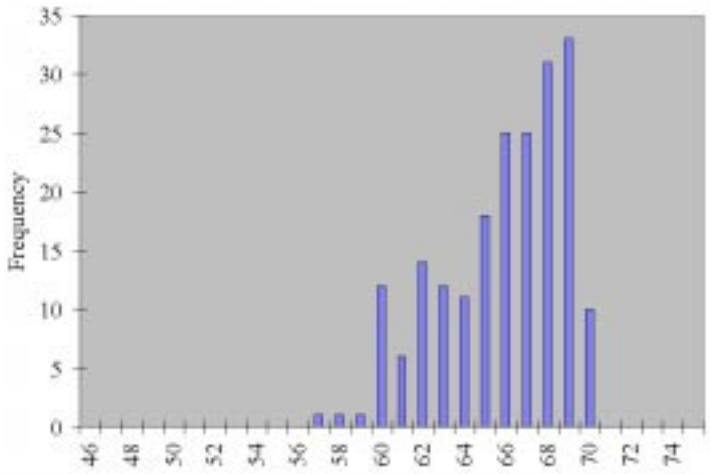
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	416
2	785000	795
3	785000	1225
4	785000	2156
5	785000	3496
6	785000	5123
7	785000	7576
8	785000	9540
9	785000	11652
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 50**

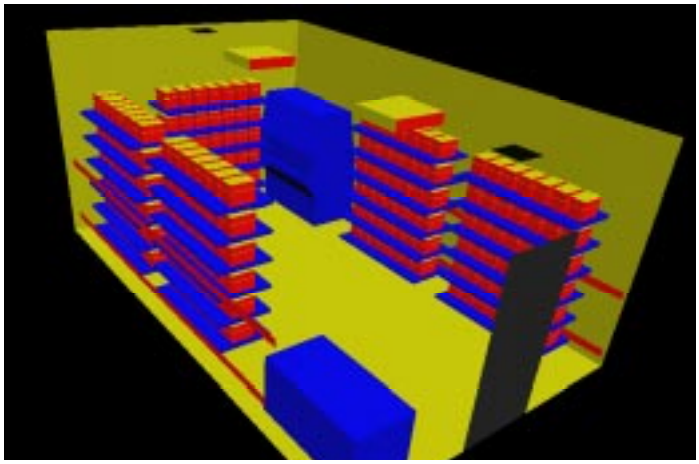
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON (swapped with r	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.17	71.91	1840	63.72%
S.D.	0.17	0.31	402	3.09%
Max.	22.58	72.64	2594	69.58%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.97	1.86	2.87	4.73	7.36	10.62	15.40	19.74	24.67	28.99
Max.	1.36	2.63	4.05	6.67	10.37	14.97	21.70	27.81	34.76	40.85

Room Breathing Zone

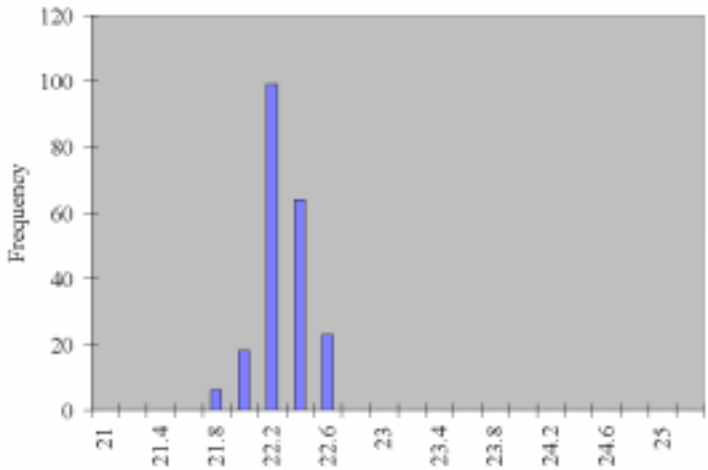
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.46	68.83	55	54.94%
S.D.	0.29	0.52	26	
Max.	25.99	78.78	198	

Room Breathing Zone NH3 (ppm)

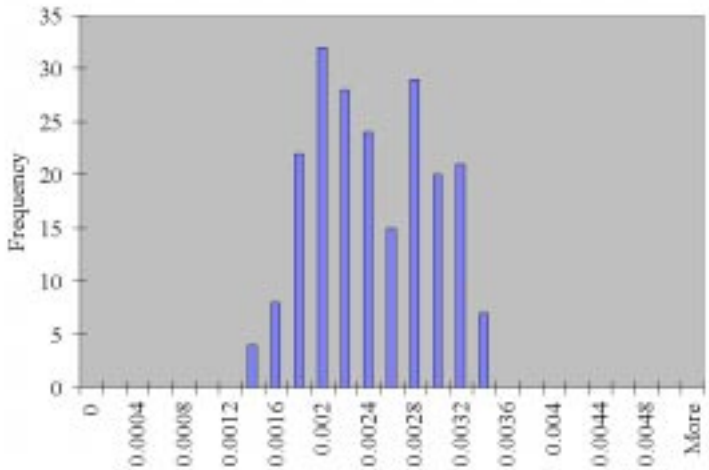
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.14	0.22	0.32	0.46	0.59	0.74	0.86
Max.	0.10	0.20	0.31	0.51	0.79	1.14	1.65	2.12	2.65	3.11

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



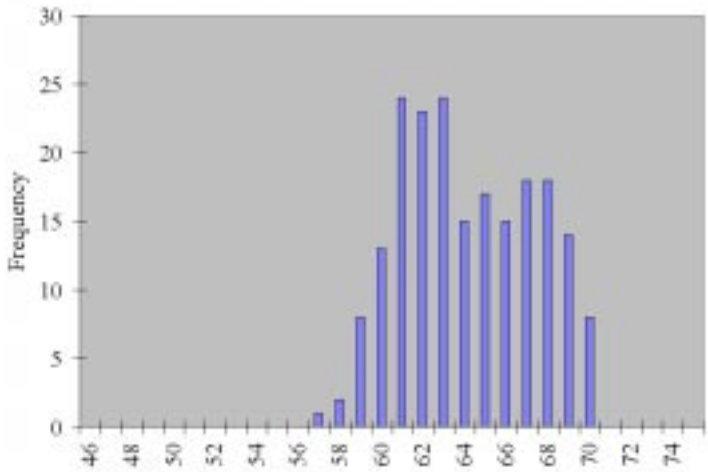
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	413
2	785000	795
3	785000	1225
4	785000	2019
5	785000	3139
6	785000	4531
7	785000	6567
8	785000	8418
9	785000	10521
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 51**

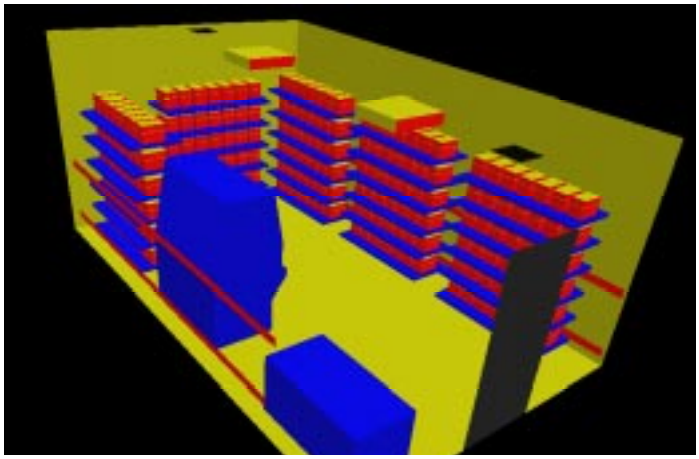
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON (swapped with r	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.19	71.95	2045	65.30%
S.D.	0.23	0.41	341	2.93%
Max.	23.17	73.71	2710	70.21%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.08	2.07	3.19	5.64	9.17	13.45	19.91	25.05	30.56	34.22
Max.	1.44	2.74	4.23	7.48	12.15	17.82	26.39	33.19	40.49	45.34

Room Breathing Zone

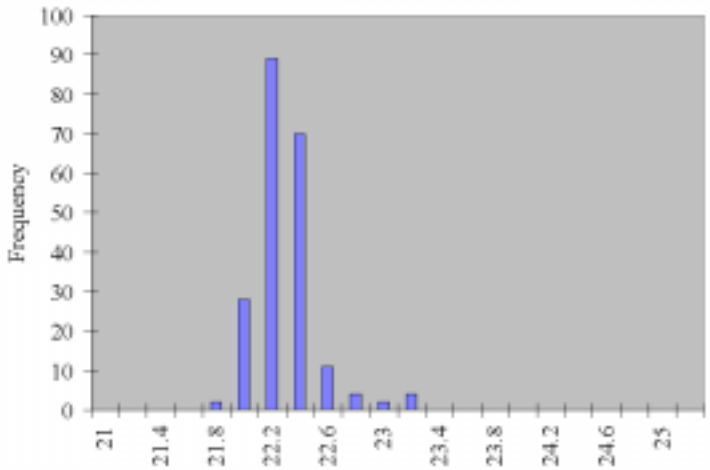
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.54	68.96	67	54.79%
S.D.	0.41	0.74	37	
Max.	25.57	78.03	229	

Room Breathing Zone NH3 (ppm)

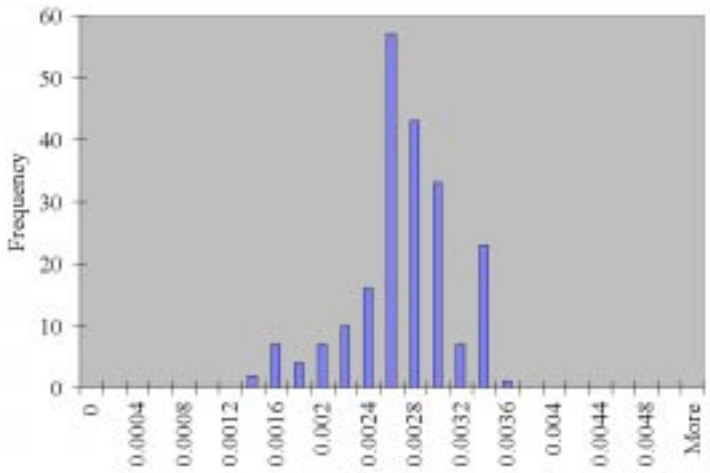
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.10	0.18	0.30	0.44	0.65	0.82	1.00	1.12
Max.	0.12	0.23	0.36	0.63	1.03	1.51	2.23	2.81	3.42	3.83

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



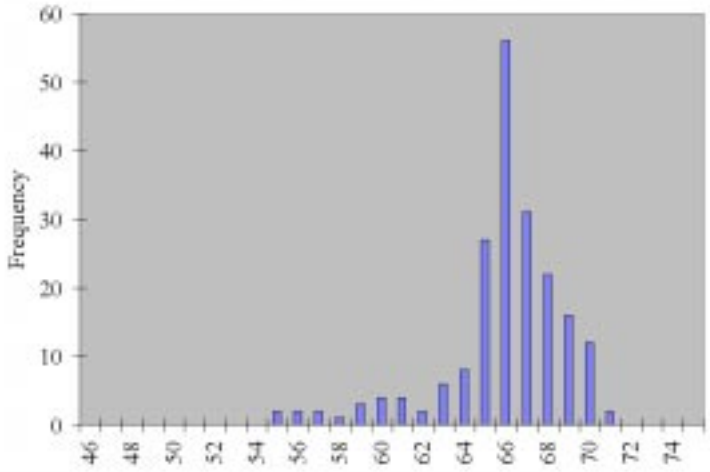
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	416
2	785000	795
3	785000	1225
4	785000	2166
5	785000	3521
6	785000	5163
7	785000	7645
8	785000	9617
9	785000	11730
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 52**

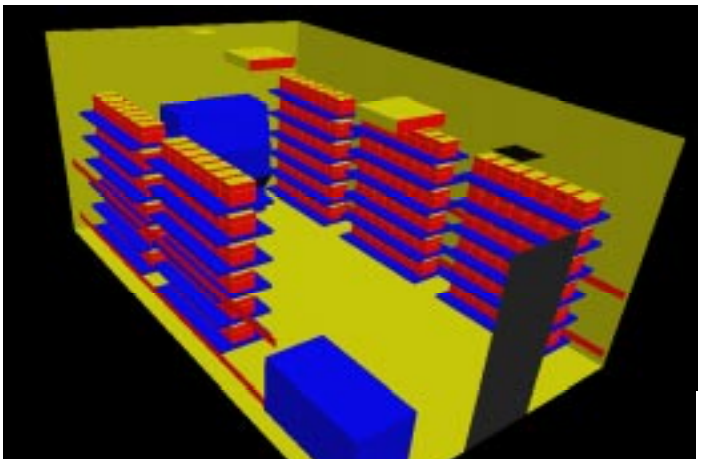
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON (swapped with r	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.47	72.45	1665	64.79%
S.D.	0.34	0.62	446	3.28%
Max.	23.41	74.13	2623	71.21%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.88	1.69	2.60	4.49	7.20	10.51	15.47	19.57	24.04	27.33
Max.	1.39	2.66	4.09	7.08	11.35	16.56	24.37	30.83	37.88	43.05

Room Breathing Zone

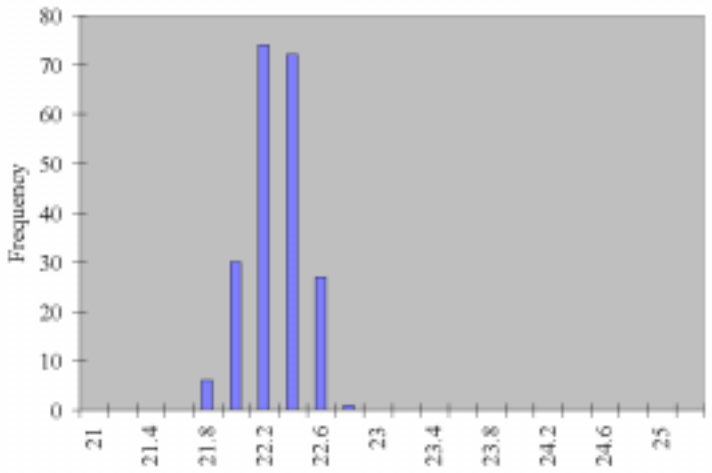
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.46	68.83	65	55.03%
S.D.	0.23	0.41	46	
Max.	25.02	77.03	363	

Room Breathing Zone NH3 (ppm)

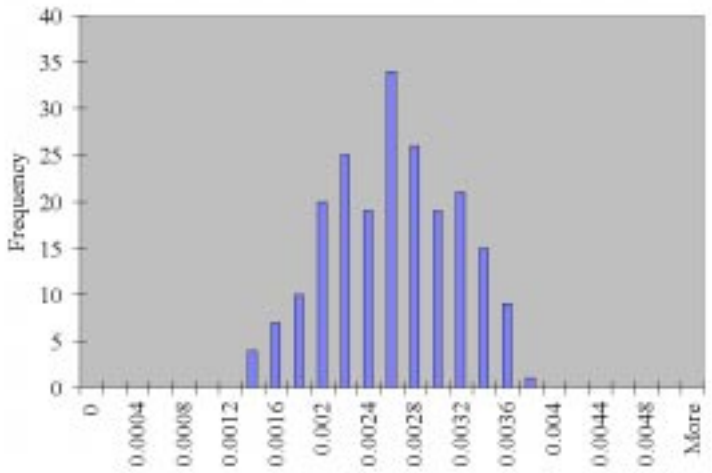
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.07	0.10	0.18	0.28	0.41	0.60	0.76	0.94	1.07
Max.	0.19	0.37	0.57	0.98	1.57	2.29	3.37	4.26	5.24	5.95

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



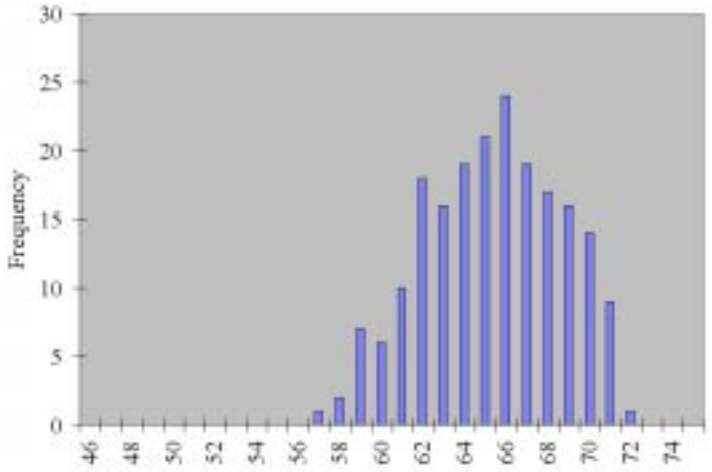
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2118
5	785000	3396
6	785000	4956
7	785000	7292
8	785000	9224
9	785000	11334
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 53**

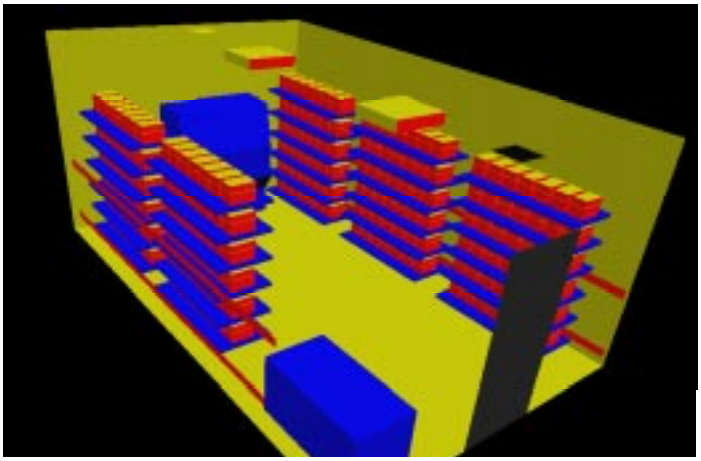
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.69	71.03	2212	68.80%
S.D.	0.15	0.26	353	2.63%
Max.	21.98	71.56	2826	73.06%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.19	2.24	3.45	7.02	12.29	18.48	28.24	34.54	40.56	41.81
Max.	1.52	2.86	4.41	8.96	15.70	23.61	36.08	44.13	51.82	53.41

Room Breathing Zone

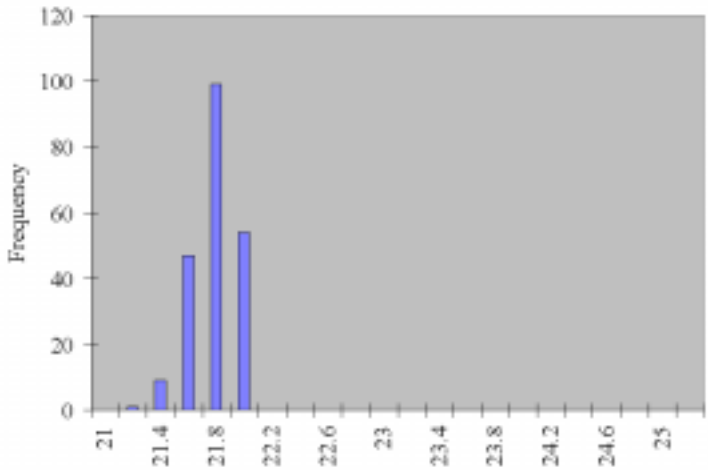
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.77	67.59	58	57.45%
S.D.	0.16	0.28	24	
Max.	21.55	70.80	168	

Room Breathing Zone NH3 (ppm)

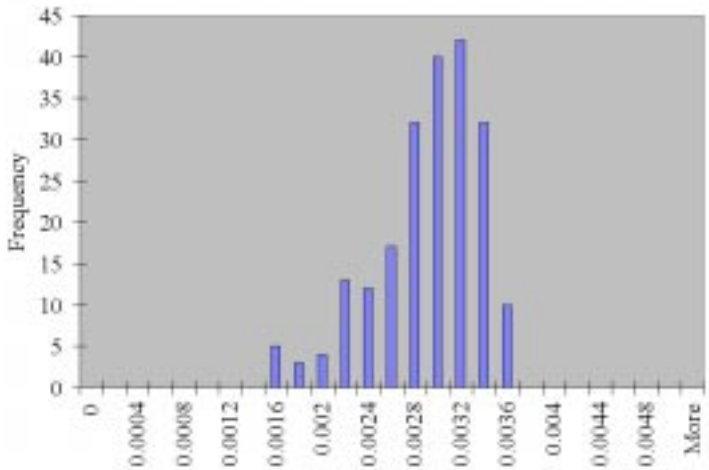
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.18	0.32	0.49	0.74	0.91	1.07	1.10
Max.	0.09	0.17	0.26	0.53	0.93	1.40	2.14	2.62	3.08	3.18

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



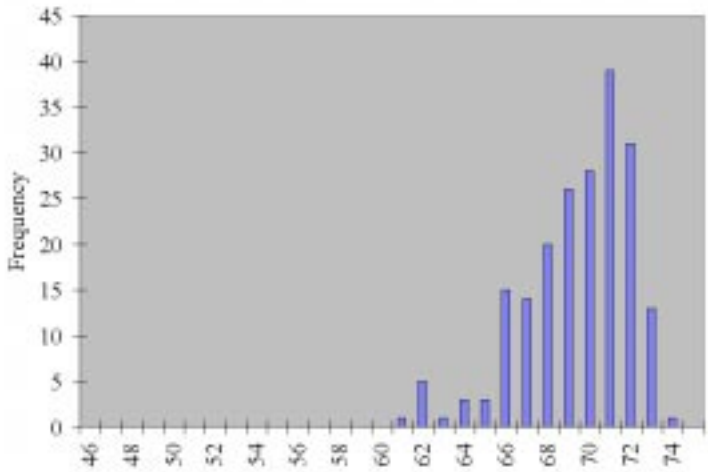
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	422
2	785000	795
3	785000	1225
4	785000	2490
5	785000	4362
6	785000	6558
7	785000	10023
8	785000	12260
9	785000	14396
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 54**

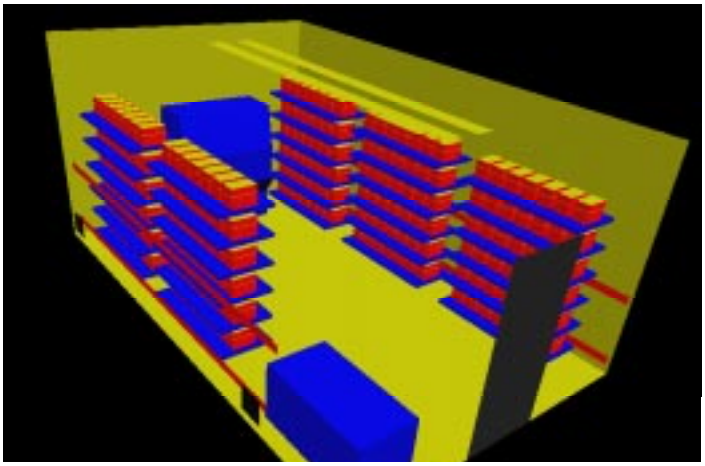
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.67	71.00	1869	66.03%
S.D.	0.15	0.27	301	2.26%
Max.	22.00	71.60	2677	72.37%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.99	1.89	2.92	5.32	8.80	12.98	19.37	24.20	29.24	32.12
Max.	1.42	2.71	4.18	7.61	12.60	18.59	27.75	34.66	41.88	46.00

Room Breathing Zone

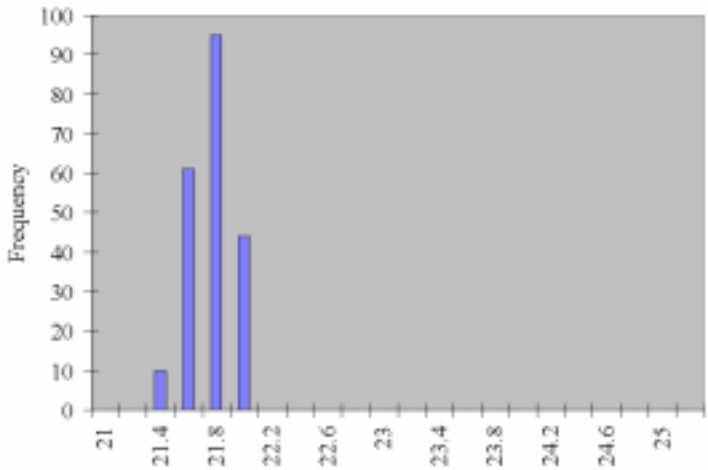
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.79	67.61	60	57.41%
S.D.	0.16	0.29	33	
Max.	20.81	69.47	283	

Room Breathing Zone NH3 (ppm)

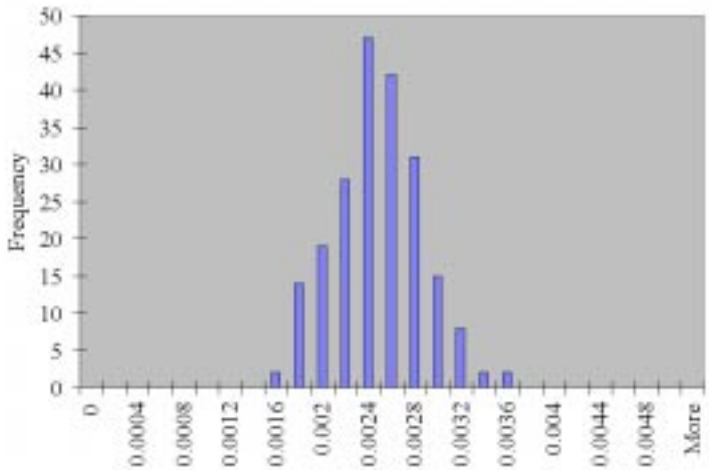
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.17	0.28	0.42	0.62	0.78	0.94	1.03
Max.	0.15	0.29	0.44	0.81	1.33	1.97	2.94	3.67	4.43	4.87

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



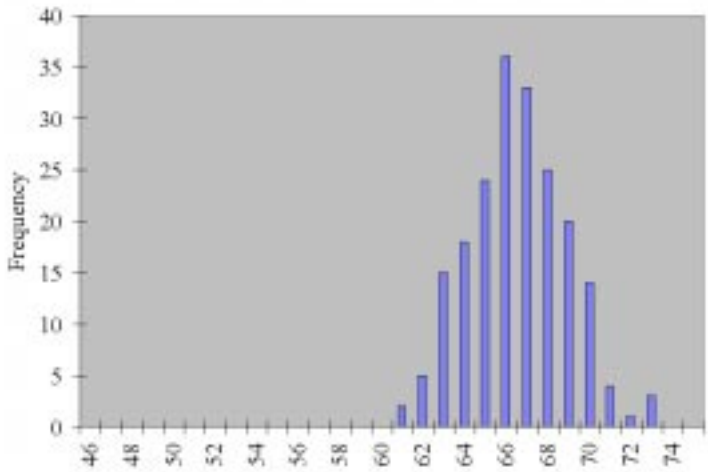
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	417
2	785000	795
3	785000	1225
4	785000	2233
5	785000	3694
6	785000	5451
7	785000	8136
8	785000	10163
9	785000	12281
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 55**

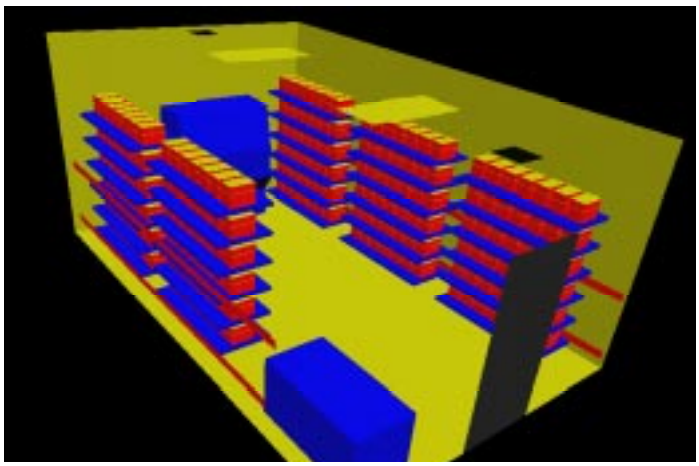
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	Ceiling	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.59	70.86	2039	67.77%
S.D.	0.15	0.27	307	2.34%
Max.	21.94	71.50	2624	71.91%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.09	2.06	3.18	6.22	10.69	15.97	24.22	29.83	35.36	37.24
Max.	1.40	2.66	4.09	8.00	13.75	20.55	31.16	38.38	45.49	47.92

Room Breathing Zone

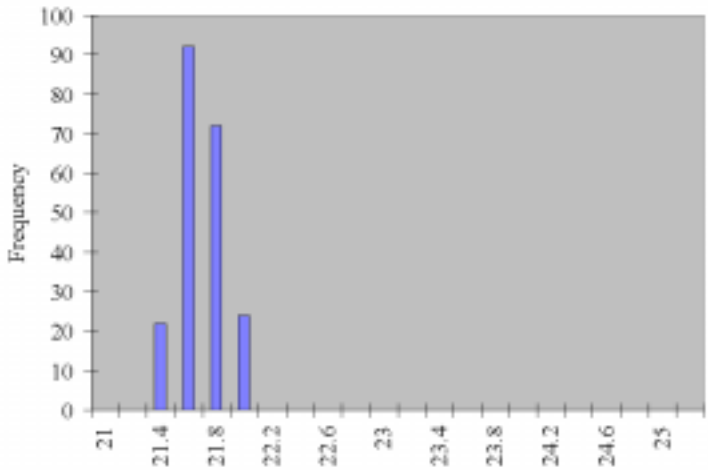
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.78	67.61	57	57.40%
S.D.	0.18	0.33	23	
Max.	20.84	69.52	241	

Room Breathing Zone NH3 (ppm)

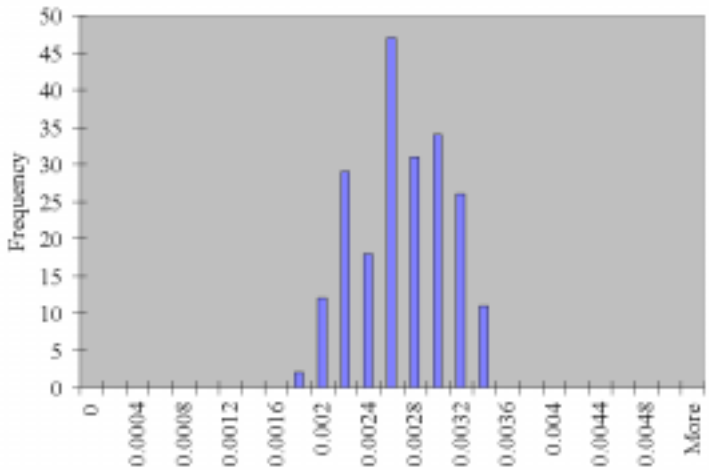
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.17	0.30	0.45	0.68	0.84	0.99	1.04
Max.	0.13	0.24	0.38	0.74	1.26	1.89	2.86	3.53	4.18	4.40

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



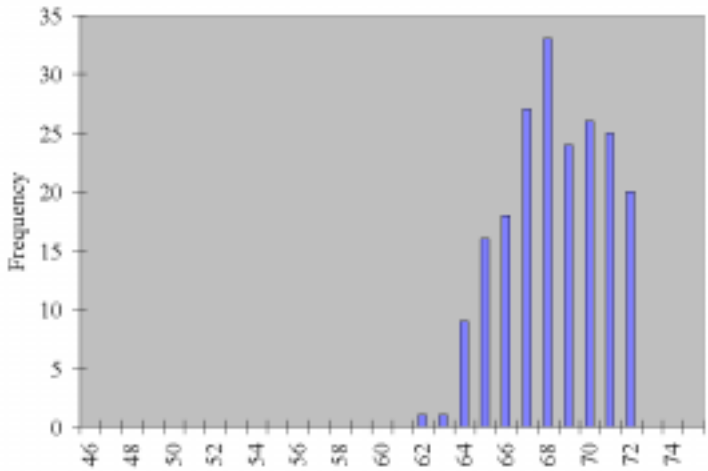
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	420
2	785000	795
3	785000	1225
4	785000	2395
5	785000	4115
6	785000	6148
7	785000	9324
8	785000	11483
9	785000	13612
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 56**

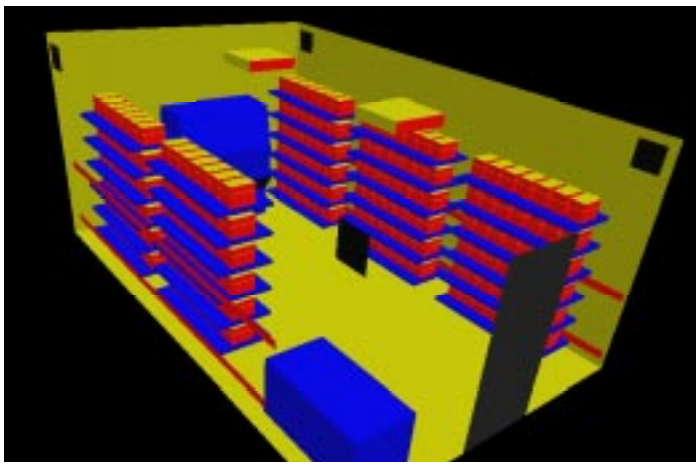
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	High	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.09	71.76	1886	64.43%
S.D.	0.16	0.29	326	2.57%
Max.	22.43	72.37	2570	69.71%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.00	1.91	2.94	5.01	7.95	11.56	16.93	21.50	26.57	30.53
Max.	1.36	2.60	4.01	6.82	10.84	15.76	23.07	29.31	36.21	41.61

Room Breathing Zone

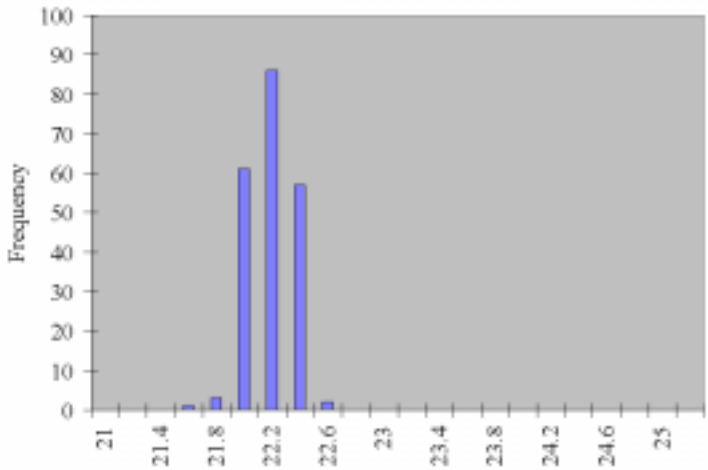
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.34	68.61	69	55.51%
S.D.	0.18	0.33	25	
Max.	21.07	69.93	157	

Room Breathing Zone NH3 (ppm)

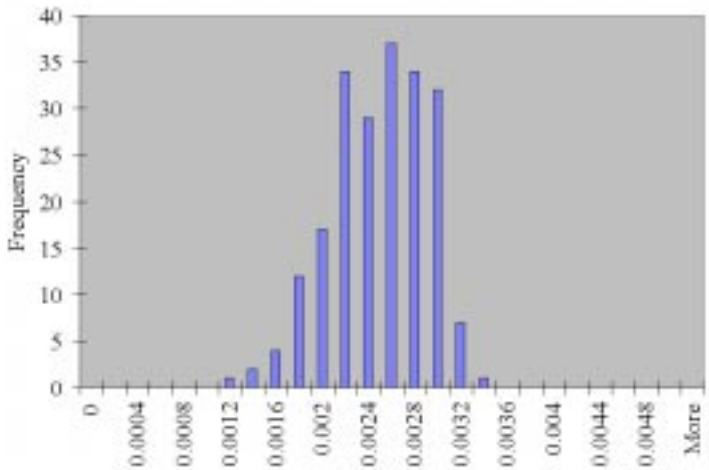
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.11	0.18	0.29	0.42	0.62	0.79	0.98	1.12
Max.	0.08	0.16	0.25	0.42	0.66	0.96	1.41	1.79	2.21	2.54

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



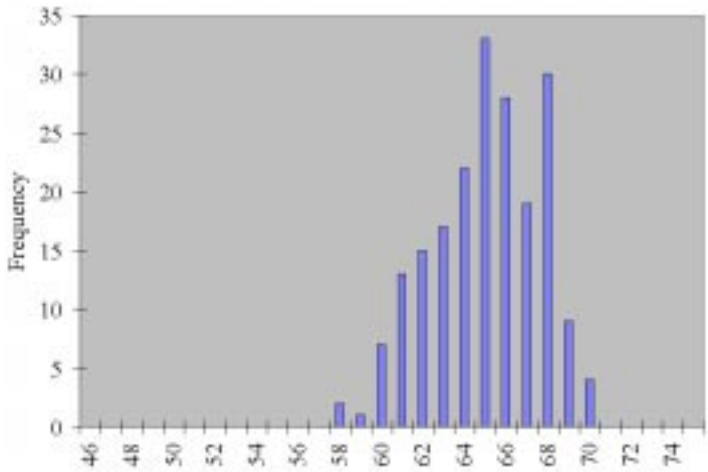
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	414
2	785000	795
3	785000	1225
4	785000	2084
5	785000	3309
6	785000	4812
7	785000	7047
8	785000	8952
9	785000	11059
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 57**

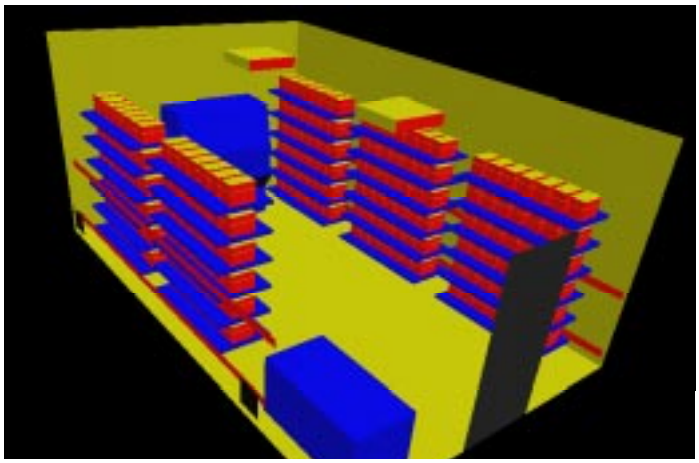
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	23.00	73.40	1855	60.60%
S.D.	0.23	0.42	401	2.74%
Max.	23.50	74.31	2741	66.66%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.96	1.88	2.89	4.17	5.87	8.14	11.13	15.02	19.95	26.08
Max.	1.43	2.77	4.28	6.17	8.67	12.02	16.46	22.20	29.48	38.54

Room Breathing Zone

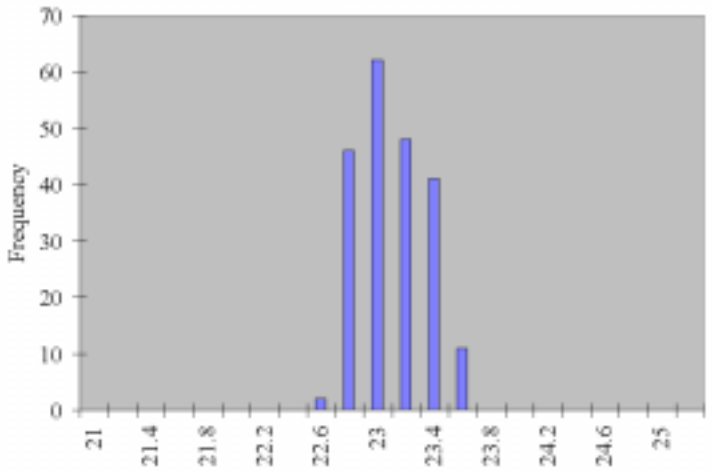
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.73	71.12	57	50.72%
S.D.	0.28	0.50	32	
Max.	22.54	72.56	279	

Room Breathing Zone NH3 (ppm)

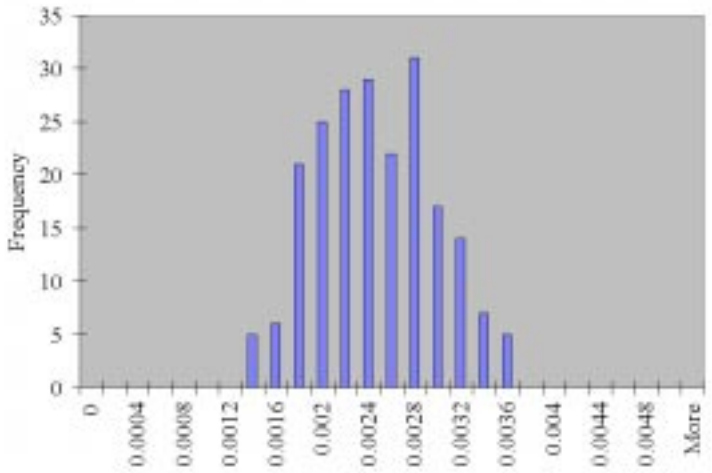
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.13	0.18	0.25	0.34	0.46	0.62	0.81
Max.	0.15	0.28	0.44	0.63	0.88	1.22	1.68	2.26	3.00	3.92

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



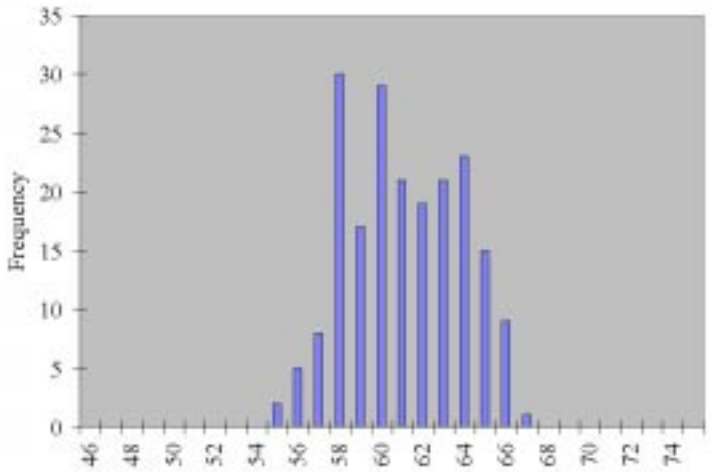
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	408
2	785000	795
3	785000	1225
4	785000	1766
5	785000	2483
6	785000	3443
7	785000	4712
8	785000	6356
9	785000	8442
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 58**

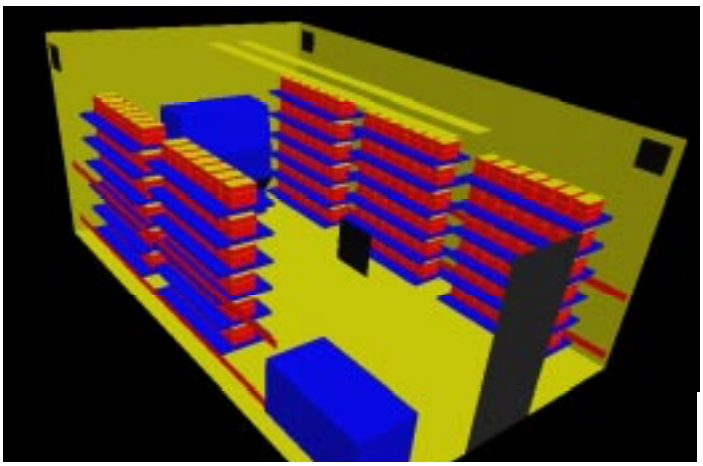
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	High	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	23.05	73.50	1990	61.43%
S.D.	0.25	0.45	426	2.90%
Max.	23.60	74.49	2869	67.54%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.04	2.01	3.10	4.58	6.56	9.16	12.68	16.93	22.23	28.50
Max.	1.50	2.90	4.48	6.60	9.45	13.21	18.29	24.42	32.05	41.10

Room Breathing Zone

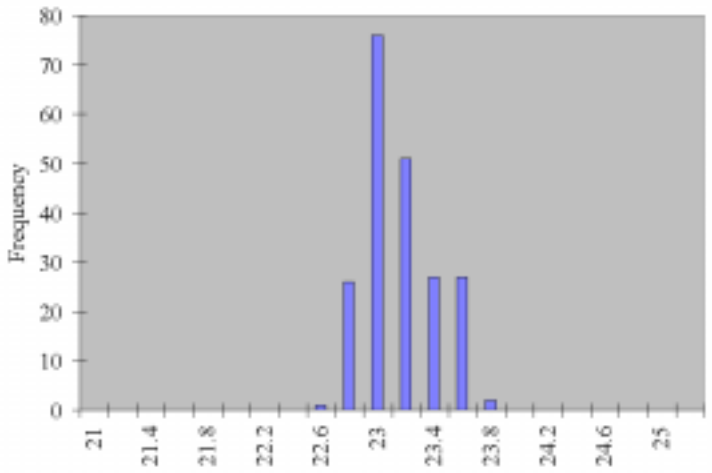
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.78	71.20	68	50.65%
S.D.	0.28	0.50	28	
Max.	22.52	72.54	254	

Room Breathing Zone NH3 (ppm)

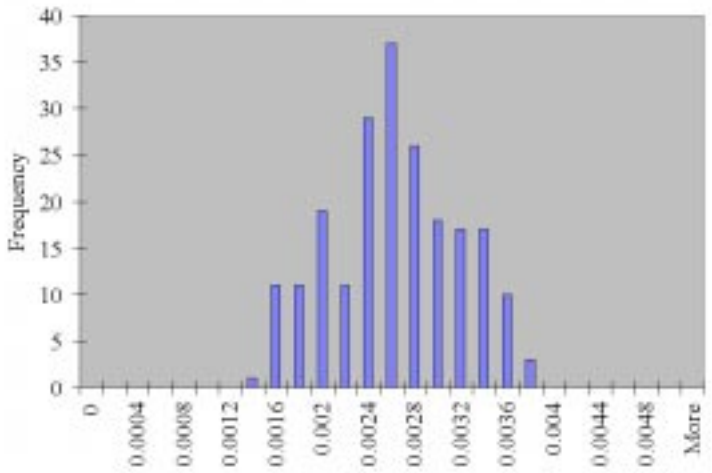
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.11	0.16	0.22	0.31	0.43	0.58	0.76	0.97
Max.	0.13	0.26	0.40	0.58	0.84	1.17	1.62	2.16	2.83	3.63

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



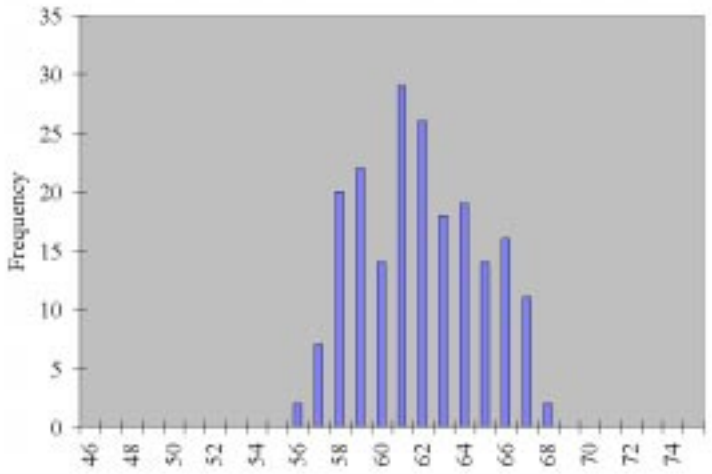
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	409
2	785000	795
3	785000	1225
4	785000	1806
5	785000	2586
6	785000	3614
7	785000	5004
8	785000	6681
9	785000	8770
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 59**

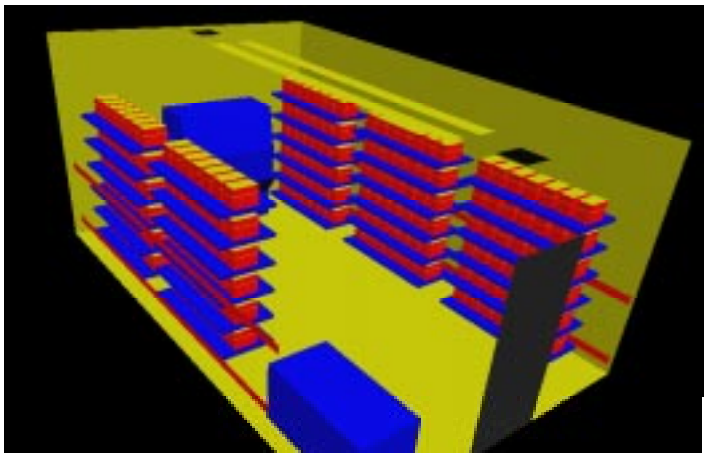
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.02	71.64	2161	66.95%
S.D.	0.16	0.29	313	2.38%
Max.	22.30	72.15	2739	71.85%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.15	2.19	3.37	6.38	10.78	16.02	24.13	29.90	35.75	38.37
Max.	1.46	2.77	4.27	8.09	13.66	20.30	30.57	37.89	45.30	48.62

Room Breathing Zone

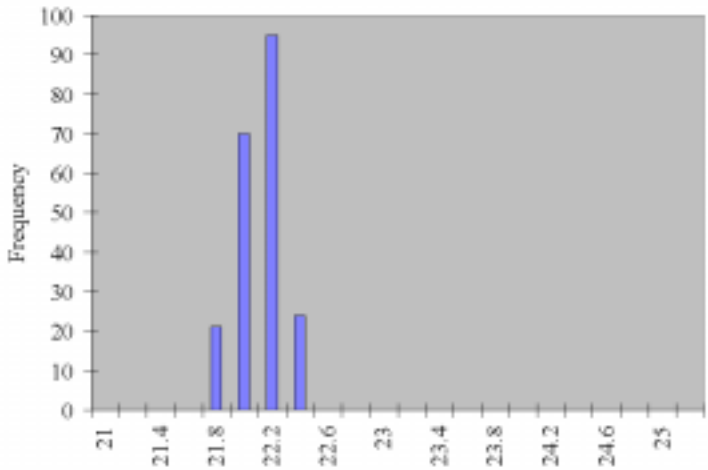
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.34	68.62	15	54.99%
S.D.	0.17	0.31	9	
Max.	21.22	70.20	90	

Room Breathing Zone NH3 (ppm)

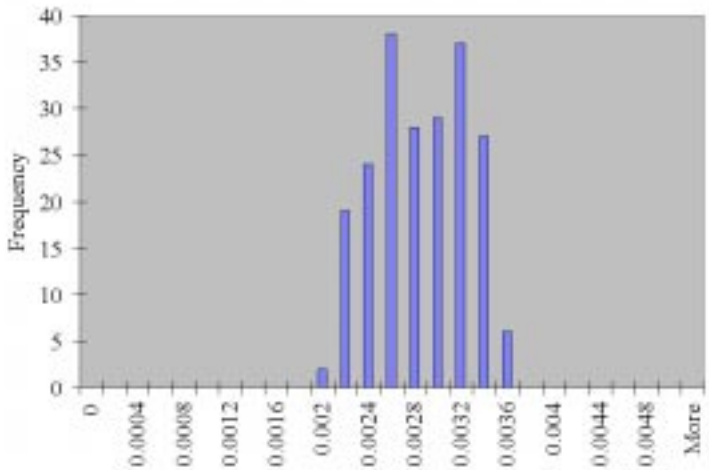
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.01	0.01	0.02	0.04	0.07	0.11	0.16	0.20	0.24	0.26
Max.	0.05	0.09	0.14	0.27	0.45	0.67	1.01	1.25	1.49	1.60

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



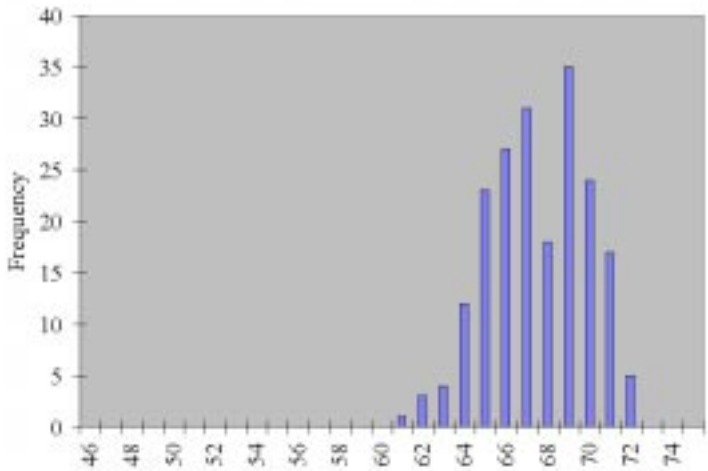
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	419
2	785000	795
3	785000	1225
4	785000	2318
5	785000	3916
6	785000	5819
7	785000	8763
8	785000	10860
9	785000	12984
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 60**

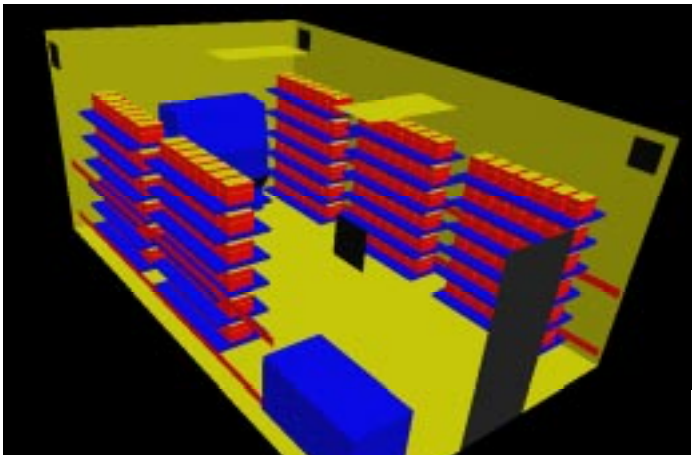
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	High	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.89	71.40	2354	69.12%
S.D.	0.27	0.48	236	2.57%
Max.	22.37	72.26	2929	74.25%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.27	2.38	3.67	7.56	13.31	20.05	30.71	37.49	43.90	44.97
Max.	1.58	2.96	4.57	9.40	16.57	24.95	38.22	46.66	54.63	55.95

Room Breathing Zone

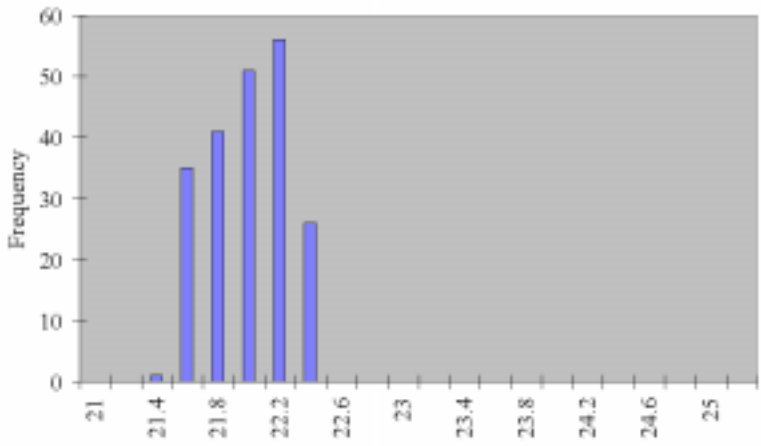
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.27	68.48	57	55.65%
S.D.	0.21	0.38	27	
Max.	21.26	70.26	174	

Room Breathing Zone NH3 (ppm)

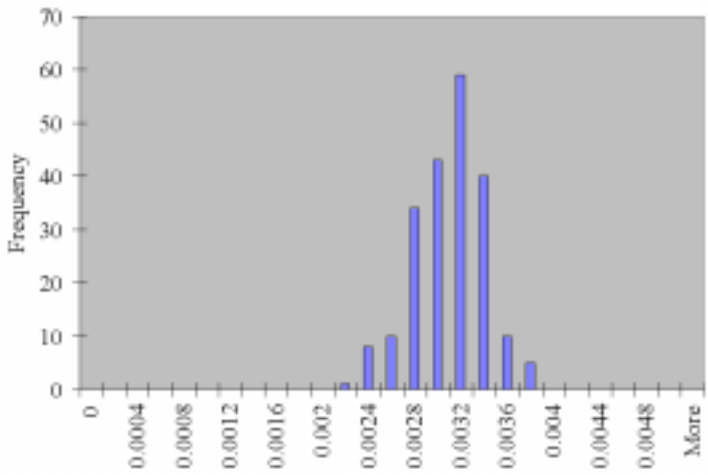
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.06	0.09	0.18	0.32	0.48	0.74	0.90	1.05	1.08
Max.	0.09	0.18	0.27	0.56	0.99	1.48	2.27	2.77	3.25	3.33

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



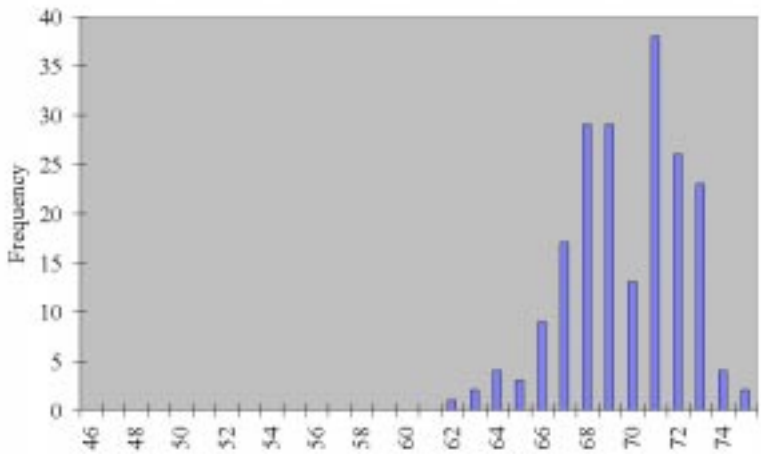
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	422
2	785000	795
3	785000	1225
4	785000	2520
5	785000	4439
6	785000	6686
7	785000	10242
8	785000	12503
9	785000	14641
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 61**

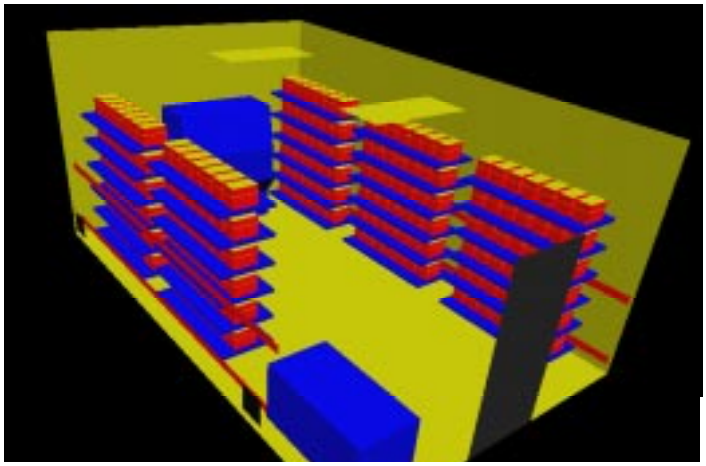
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	23.13	73.63	2042	61.56%
S.D.	0.40	0.73	410	2.86%
Max.	24.05	75.29	2824	66.70%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.06	2.07	3.19	4.73	6.81	9.54	13.26	17.64	23.08	29.42
Max.	1.47	2.86	4.41	6.54	9.42	13.20	18.33	24.40	31.92	40.69

Room Breathing Zone

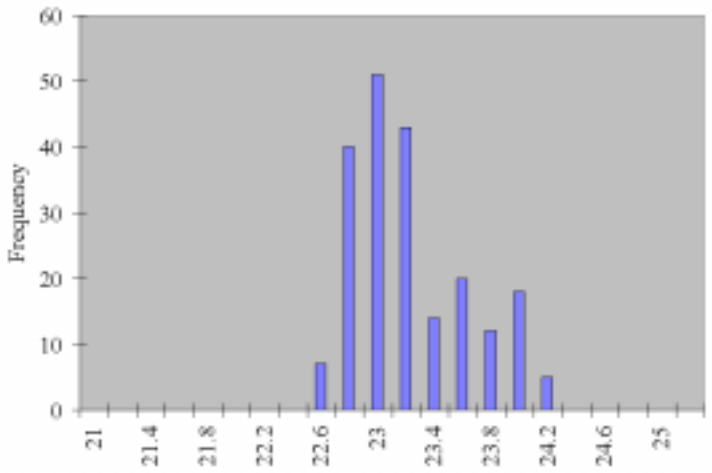
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.04	71.67	69	49.83%
S.D.	0.49	0.88	26	
Max.	23.21	73.77	310	

Room Breathing Zone NH3 (ppm)

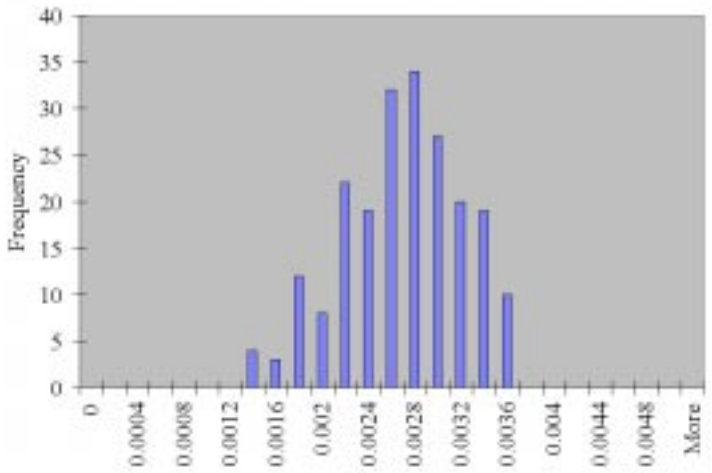
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.04	0.07	0.11	0.16	0.23	0.32	0.45	0.59	0.78	0.99
Max.	0.16	0.31	0.48	0.72	1.03	1.45	2.01	2.68	3.50	4.47

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



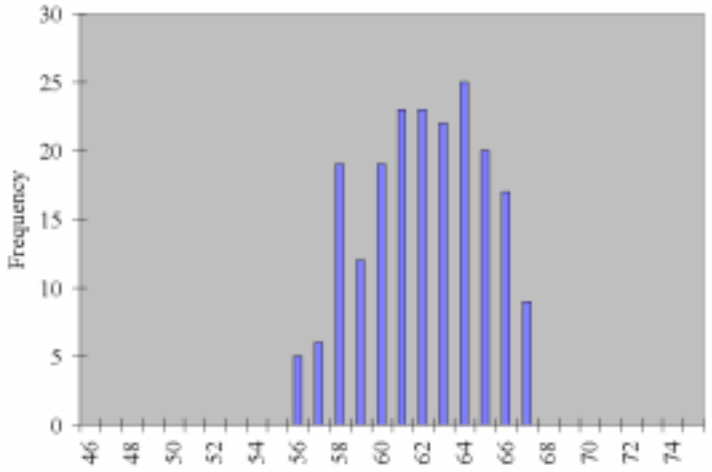
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	409
2	785000	795
3	785000	1225
4	785000	1818
5	785000	2618
6	785000	3668
7	785000	5095
8	785000	6782
9	785000	8872
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 62**

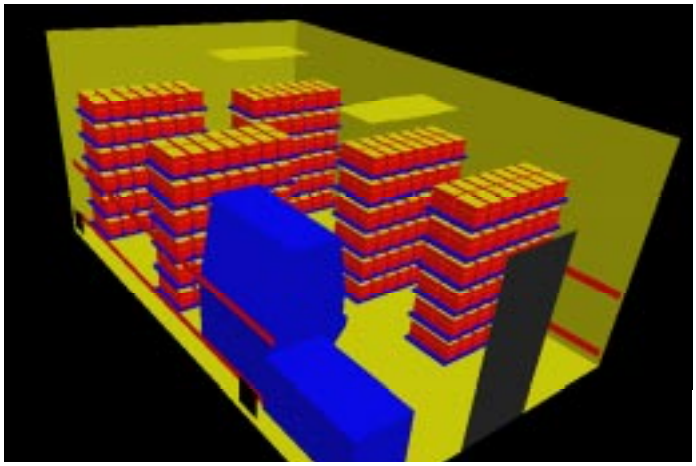
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	6.6	89%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
5

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.87	69.56	2325	52.77%
S.D.	0.77	1.38	520	4.06%
Max.	22.64	72.75	3389	59.89%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.21	2.35	3.63	5.23	7.36	10.20	13.96	18.83	25.01	32.69
Max.	1.76	3.43	5.29	7.62	10.72	14.86	20.34	27.44	36.44	47.64

Room Breathing Zone

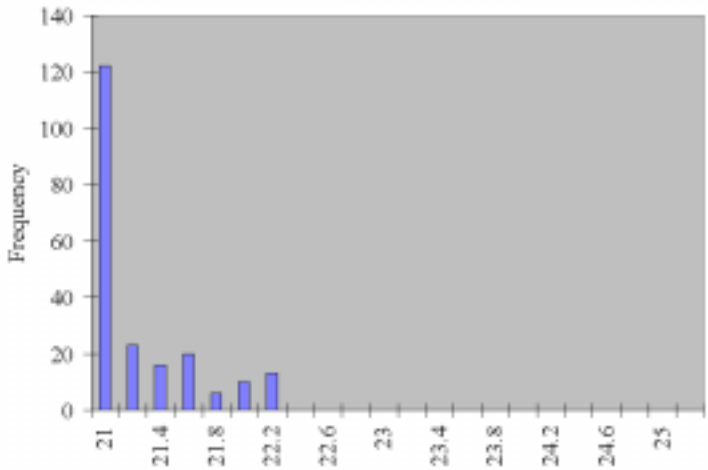
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	19.15	66.47	342	62.56%
S.D.	0.95	1.71	216	
Max.	25.27	77.49	897	

Room Breathing Zone NH3 (ppm)

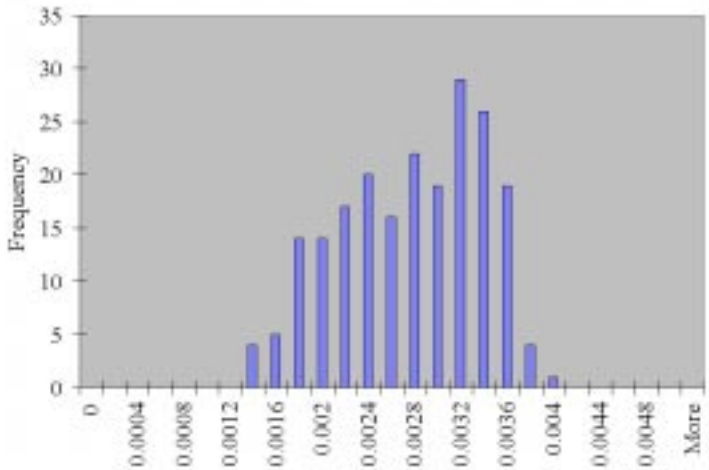
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.18	0.35	0.53	0.77	1.08	1.50	2.05	2.77	3.68	4.81
Max.	0.47	0.91	1.40	2.02	2.84	3.94	5.39	7.27	9.65	12.61

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



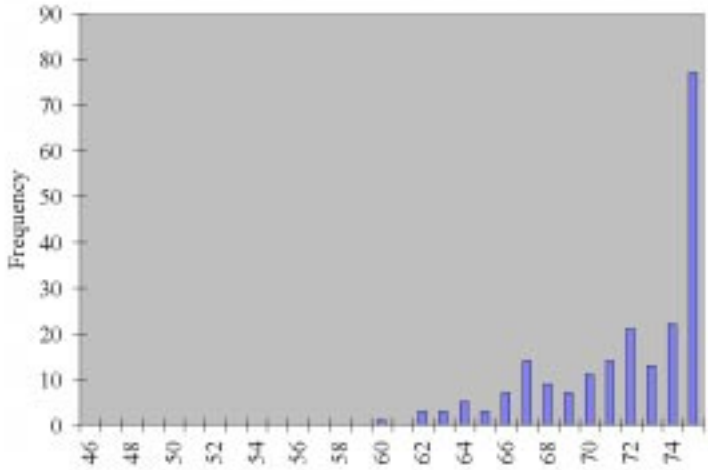
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2129
5	785000	3425
6	785000	5004
7	785000	7374
8	785000	9315
9	785000	11426
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 63**

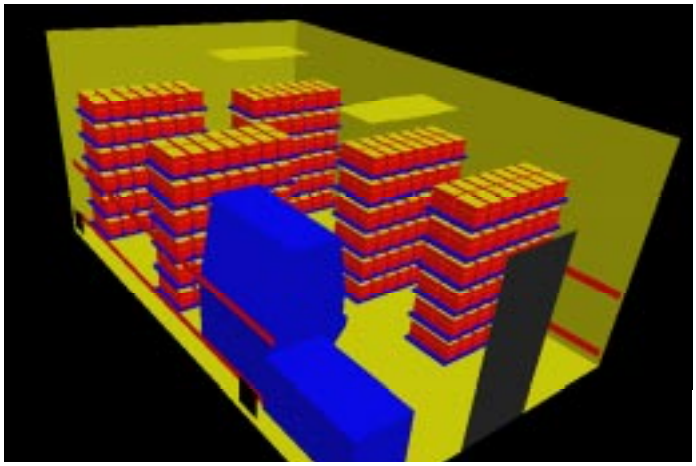
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	14.8	79%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
10

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.91	71.44	2081	64.91%
S.D.	0.53	0.95	523	3.42%
Max.	23.10	73.57	3402	72.86%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.10	2.11	3.25	5.64	9.08	13.26	19.55	24.69	30.29	34.30
Max.	1.80	3.44	5.31	9.23	14.84	21.69	31.96	40.37	49.52	56.09

Room Breathing Zone

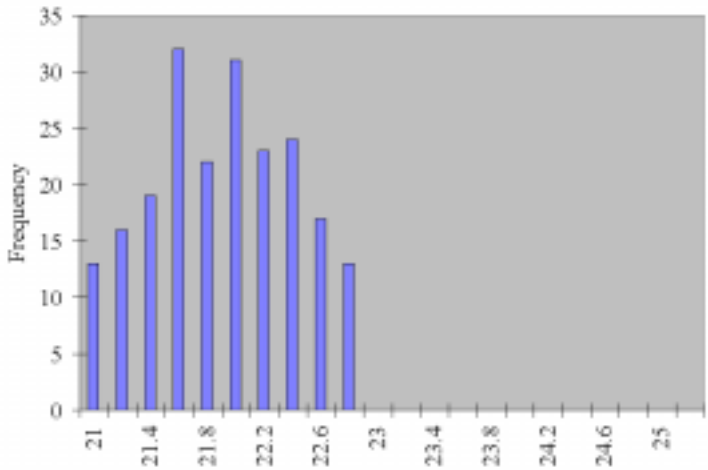
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.34	68.62	215	56.81%
S.D.	0.81	1.46	109	
Max.	26.82	80.28	650	

Room Breathing Zone NH3 (ppm)

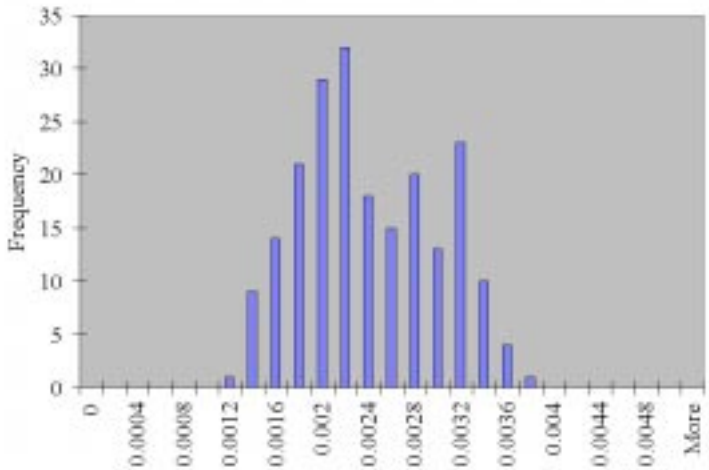
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.11	0.22	0.34	0.58	0.94	1.37	2.02	2.55	3.13	3.54
Max.	0.34	0.66	1.01	1.76	2.83	4.14	6.10	7.71	9.46	10.71

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



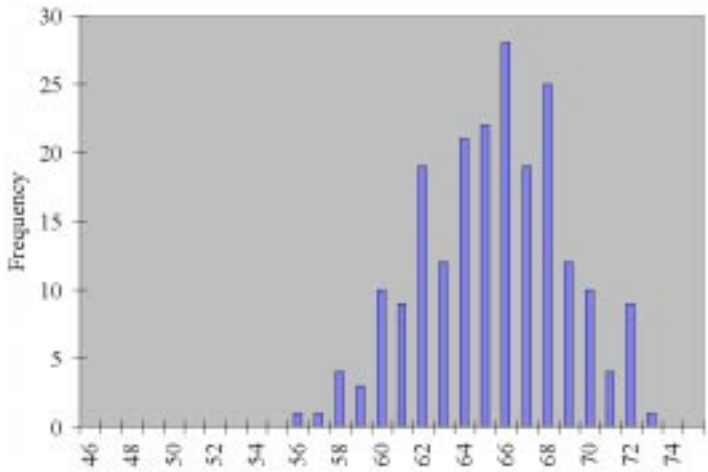
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	415
2	785000	795
3	785000	1225
4	785000	2129
5	785000	3425
6	785000	5004
7	785000	7374
8	785000	9315
9	785000	11426
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 64**

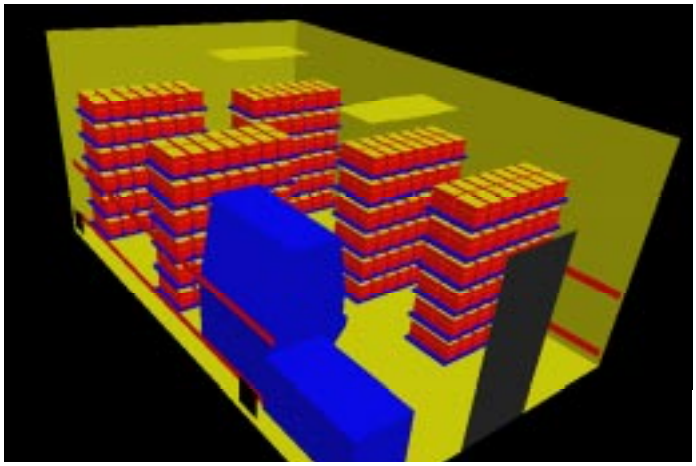
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.9	60%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
20

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.66	72.79	1808	60.21%
S.D.	0.28	0.50	422	2.96%
Max.	23.34	74.02	2618	67.10%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.94	1.83	2.82	4.07	5.72	7.93	10.85	14.64	19.44	25.42
Max.	1.36	2.65	4.09	5.89	8.28	11.48	15.71	21.20	28.15	36.80

Room Breathing Zone

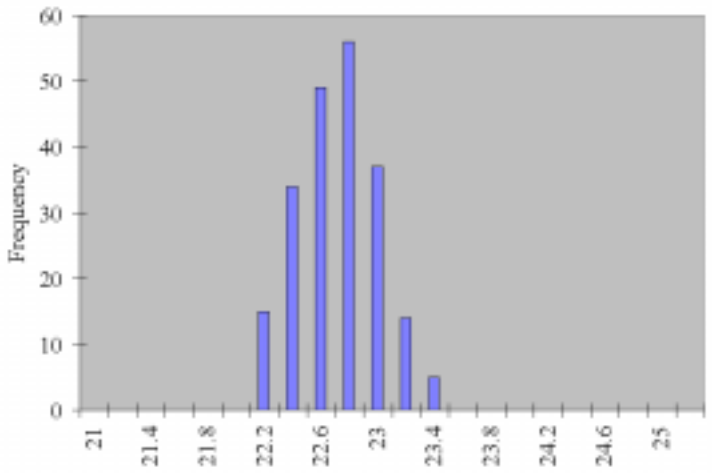
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.17	70.10	93	52.87%
S.D.	0.71	1.27	47	
Max.	27.72	81.89	324	

Room Breathing Zone NH3 (ppm)

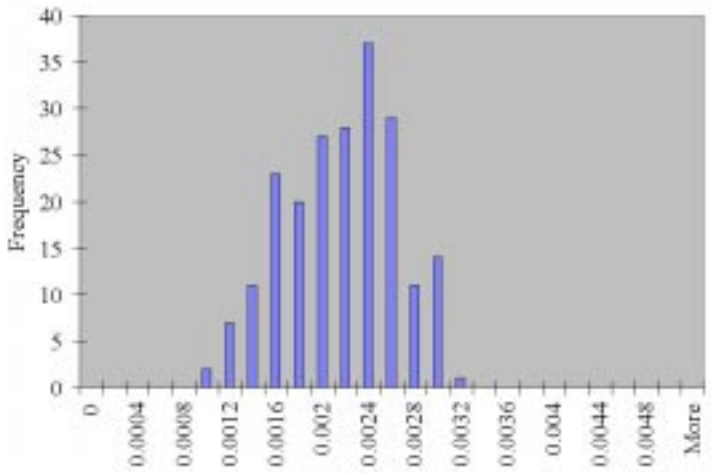
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.05	0.09	0.15	0.21	0.29	0.41	0.56	0.75	1.00	1.31
Max.	0.17	0.33	0.51	0.73	1.02	1.42	1.94	2.62	3.48	4.55

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



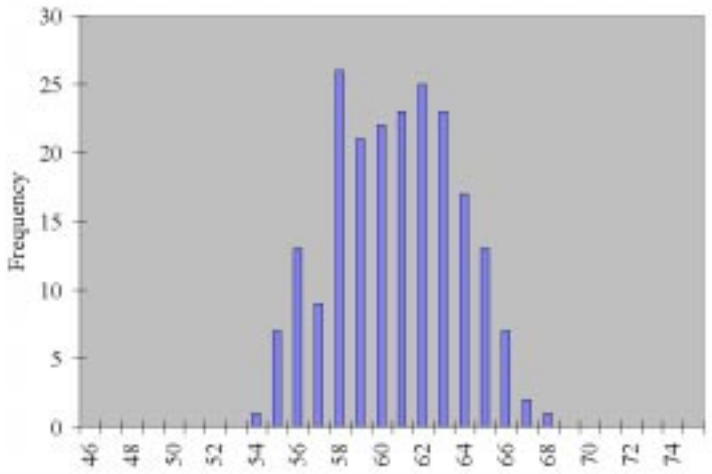
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	408
2	785000	795
3	785000	1225
4	785000	1766
5	785000	2483
6	785000	3443
7	785000	4712
8	785000	6356
9	785000	8442
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 65**

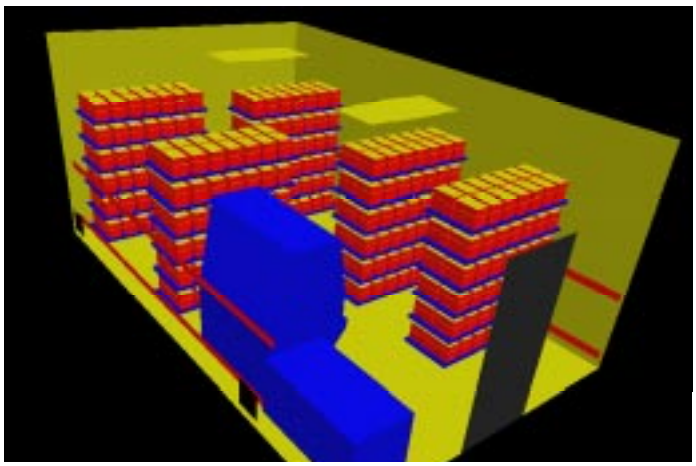
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	17.5	66%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.43	72.37	2002	62.67%
S.D.	0.29	0.52	461	2.88%
Max.	23.21	73.77	3148	69.19%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.05	2.03	3.12	4.90	7.36	10.48	14.92	19.44	24.79	30.23
Max.	1.65	3.19	4.91	7.70	11.57	16.49	23.46	30.57	38.97	47.53

Room Breathing Zone

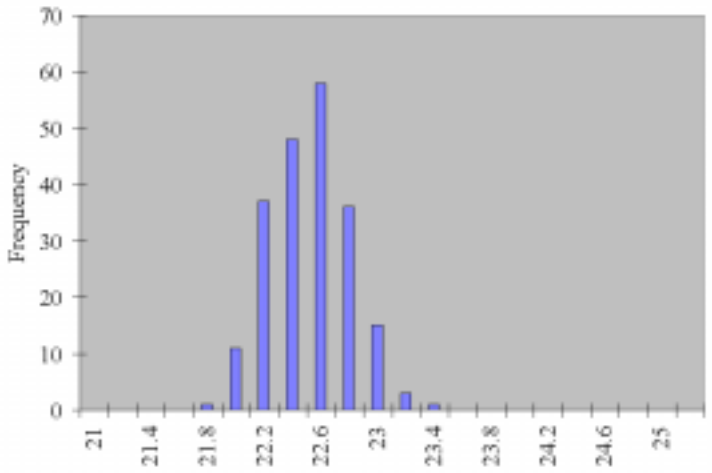
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.83	69.49	133	54.38%
S.D.	0.39	0.71	50	
Max.	21.70	71.07	321	

Room Breathing Zone NH3 (ppm)

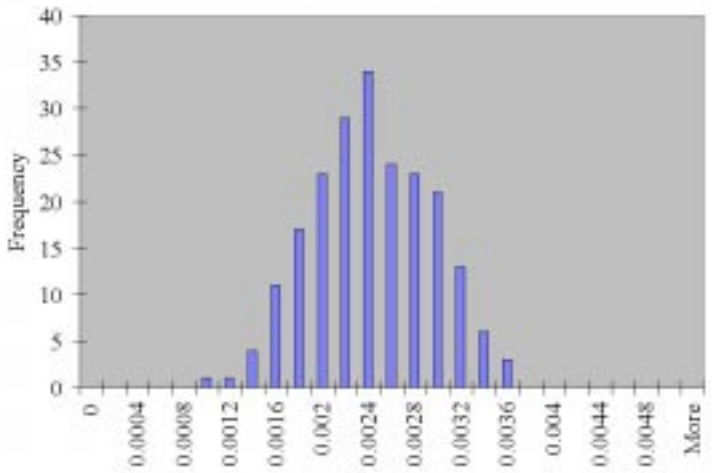
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.07	0.14	0.21	0.33	0.49	0.70	0.99	1.30	1.65	2.01
Max.	0.17	0.32	0.50	0.79	1.18	1.68	2.39	3.12	3.97	4.85

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



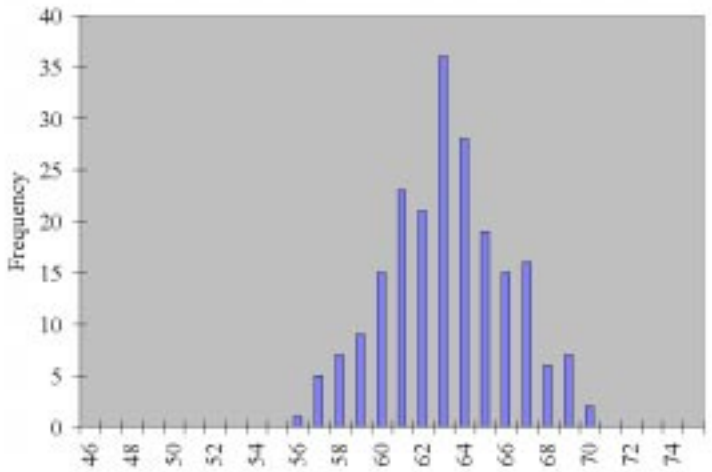
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	411
2	785000	795
3	785000	1225
4	785000	1921
5	785000	2886
6	785000	4111
7	785000	5850
8	785000	7622
9	785000	9718
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 66**

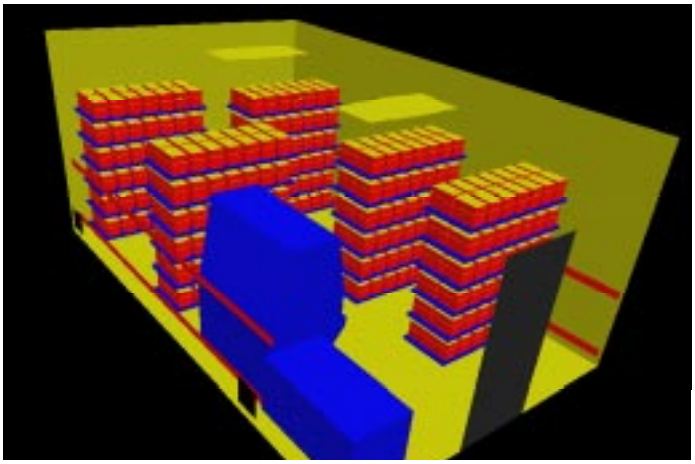
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	6.6	89%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
5

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.61	69.09	2318	52.96%
S.D.	0.61	1.09	529	4.37%
Max.	21.89	71.40	3468	61.72%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.21	2.35	3.62	5.21	7.33	10.17	13.91	18.77	24.92	32.58
Max.	1.80	3.51	5.41	7.80	10.97	15.21	20.82	28.08	37.30	48.76

Room Breathing Zone

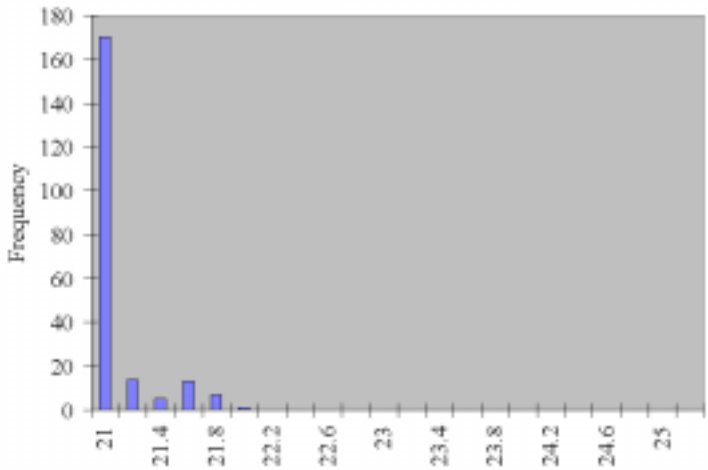
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	18.65	65.56	318	64.38%
S.D.	0.68	1.22	117	
Max.	20.41	68.75	819	

Room Breathing Zone NH3 (ppm)

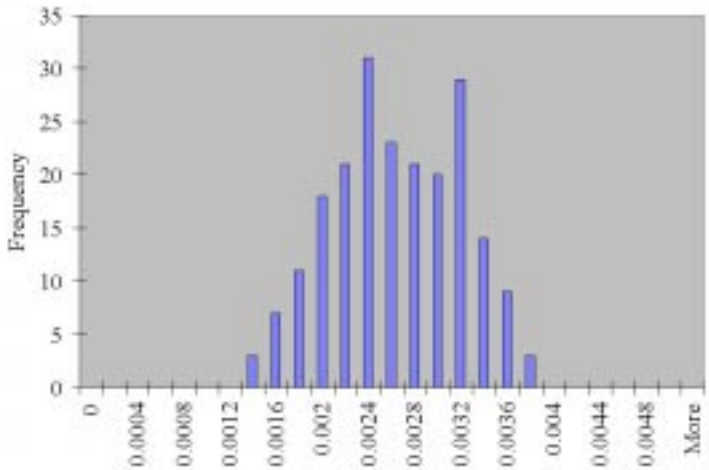
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.17	0.32	0.50	0.72	1.01	1.40	1.91	2.58	3.42	4.47
Max.	0.43	0.83	1.28	1.84	2.59	3.59	4.91	6.63	8.81	11.51

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



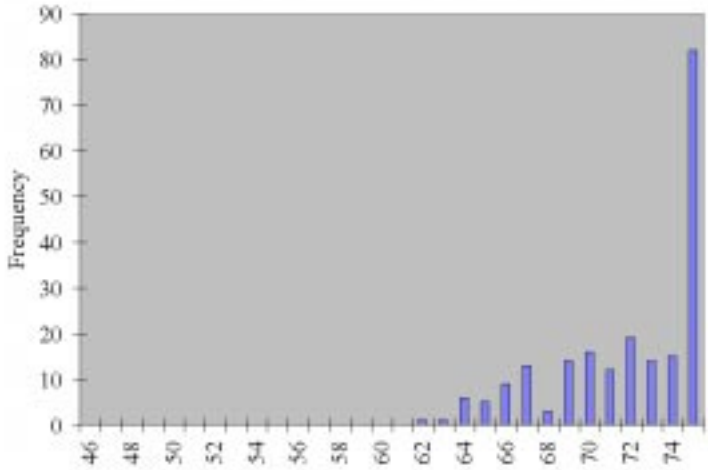
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	408
2	785000	795
3	785000	1225
4	785000	1766
5	785000	2483
6	785000	3443
7	785000	4712
8	785000	6356
9	785000	8442
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 67**

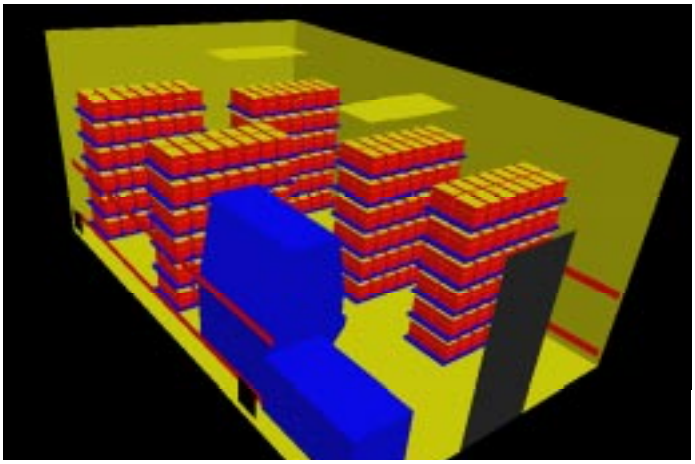
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	14.8	79%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
10

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.87	71.37	2144	65.77%
S.D.	0.45	0.80	509	3.79%
Max.	22.90	73.22	3404	72.36%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.14	2.17	3.34	6.03	9.92	14.61	21.75	27.23	33.01	36.49
Max.	1.81	3.45	5.31	9.58	15.76	23.20	34.53	43.24	52.41	57.95

Room Breathing Zone

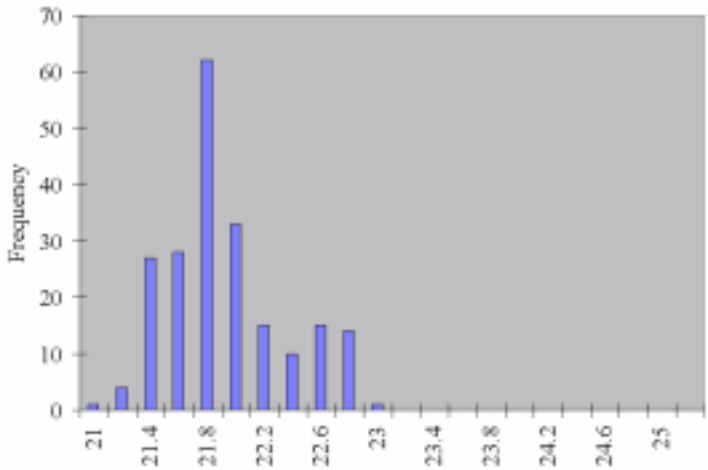
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	20.19	68.35	201	57.23%
S.D.	0.52	0.93	90	
Max.	21.51	70.72	623	

Room Breathing Zone NH3 (ppm)

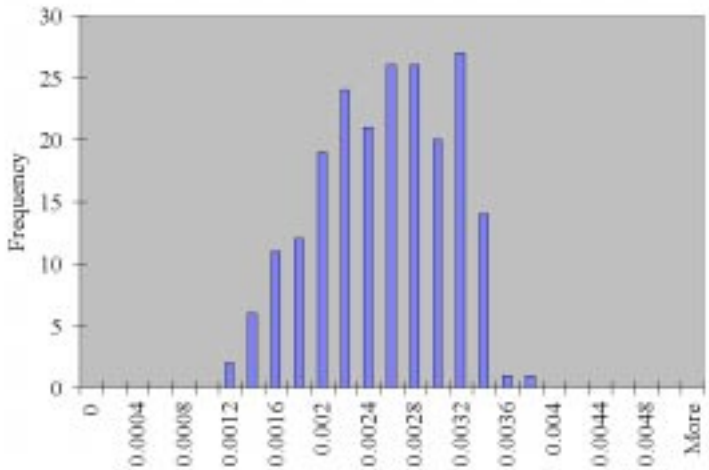
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.11	0.20	0.31	0.57	0.93	1.37	2.04	2.55	3.10	3.42
Max.	0.33	0.63	0.97	1.75	2.88	4.25	6.32	7.92	9.60	10.61

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



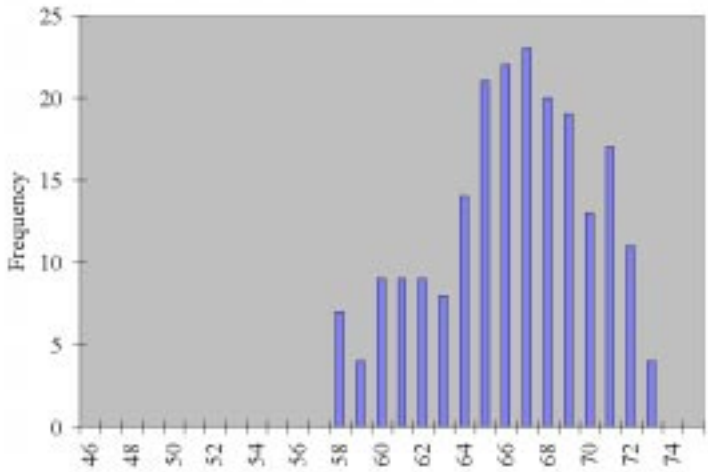
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	417
2	785000	795
3	785000	1225
4	785000	2209
5	785000	3633
6	785000	5350
7	785000	7963
8	785000	9970
9	785000	12087
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 68**

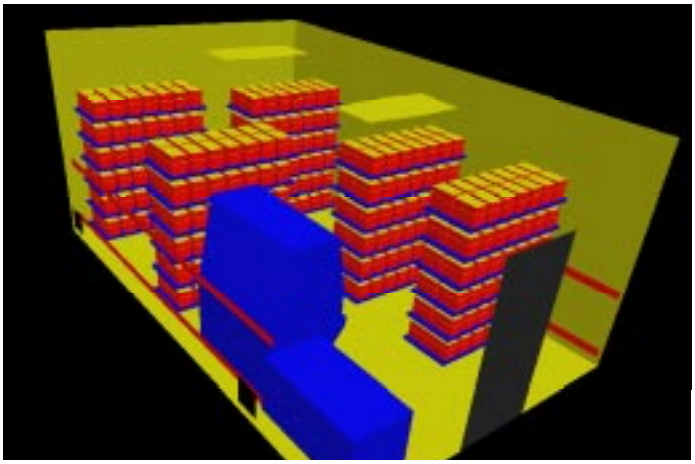
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.9	60%	Low	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON alt design	Perp	Double	2100	42000 gr	neg 100cfm

Room ACH
20

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.75	72.95	1838	60.41%
S.D.	0.23	0.41	432	2.49%
Max.	23.21	73.77	2899	66.53%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.96	1.86	2.87	4.13	5.81	8.06	11.03	14.89	19.77	25.84
Max.	1.51	2.93	4.52	6.52	9.17	12.71	17.40	23.47	31.17	40.75

Room Breathing Zone

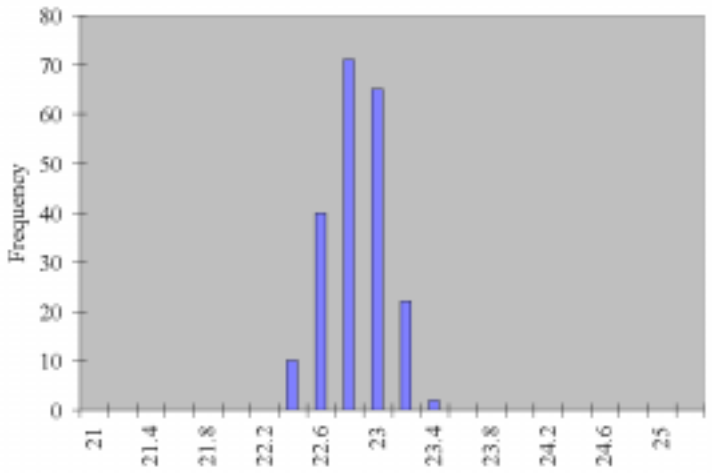
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.23	70.22	93	52.65%
S.D.	0.31	0.55	43	
Max.	22.20	71.95	262	

Room Breathing Zone NH3 (ppm)

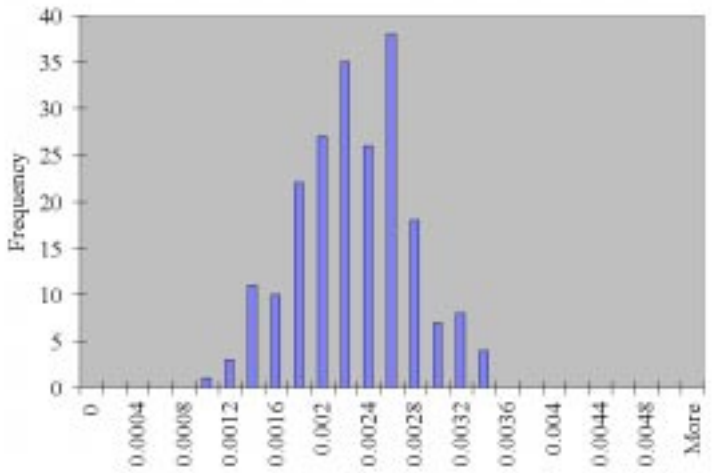
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.05	0.09	0.15	0.21	0.29	0.41	0.56	0.75	1.00	1.31
Max.	0.14	0.26	0.41	0.59	0.83	1.15	1.57	2.12	2.81	3.68

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



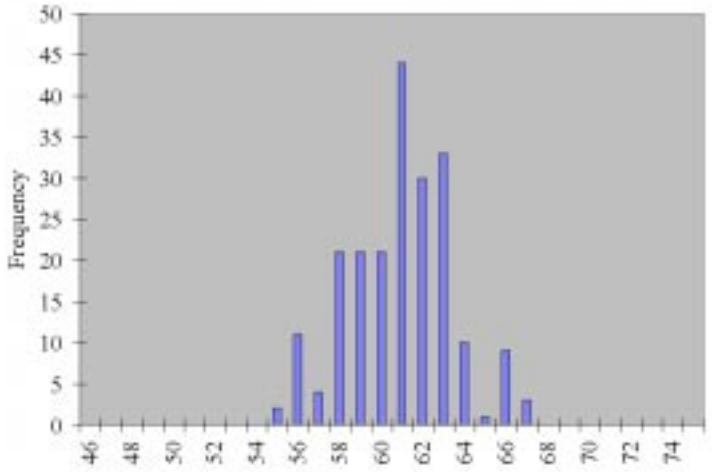
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	408
2	785000	795
3	785000	1225
4	785000	1766
5	785000	2483
6	785000	3443
7	785000	4712
8	785000	6356
9	785000	8442
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 69**

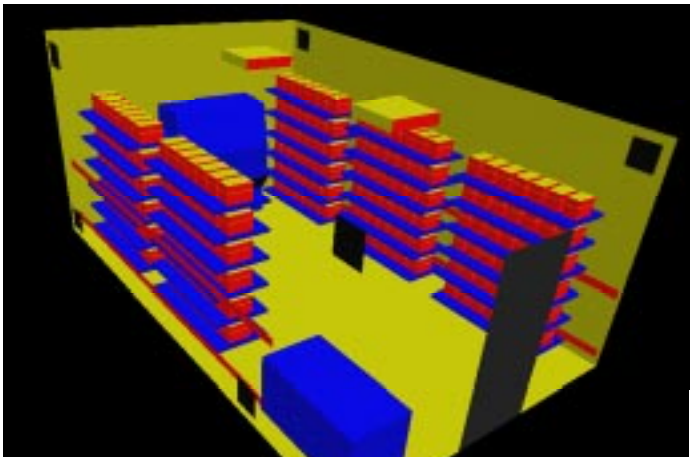
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	High x4 / Low x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.73	72.91	1750	60.88%
S.D.	0.37	0.67	328	2.88%
Max.	23.85	74.93	2582	66.91%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.91	1.77	2.73	3.94	5.54	7.68	10.51	14.17	18.82	24.61
Max.	1.34	2.61	4.03	5.81	8.17	11.33	15.50	20.91	27.77	36.30

Room Breathing Zone

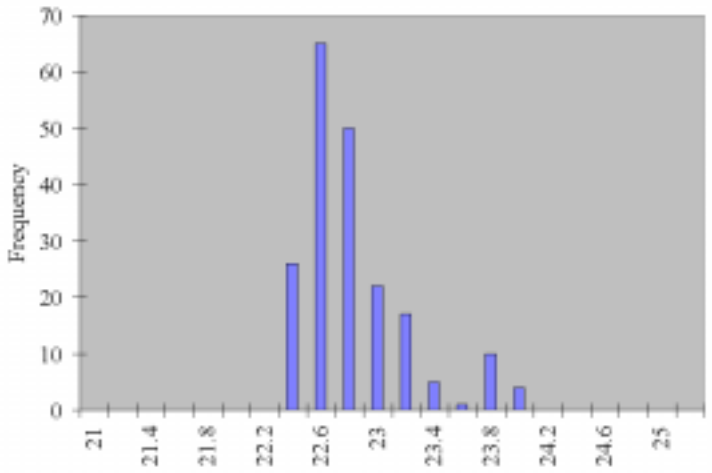
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.25	70.25	51	52.23%
S.D.	0.25	0.44	35	
Max.	22.03	71.66	260	

Room Breathing Zone NH3 (ppm)

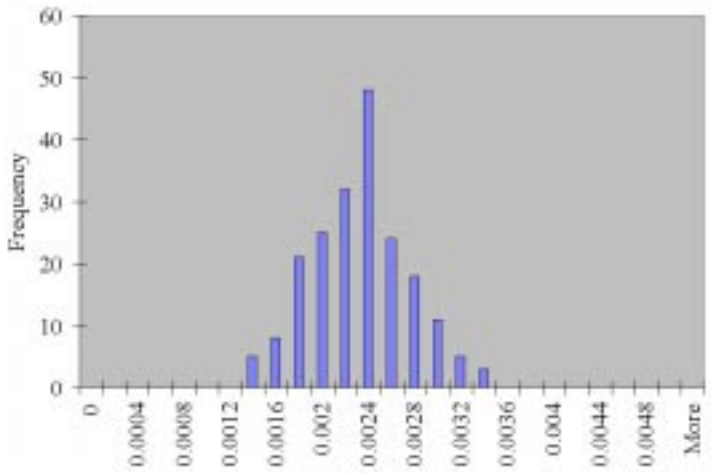
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.08	0.12	0.16	0.22	0.31	0.41	0.55	0.72
Max.	0.14	0.26	0.41	0.59	0.82	1.14	1.56	2.11	2.80	3.66

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



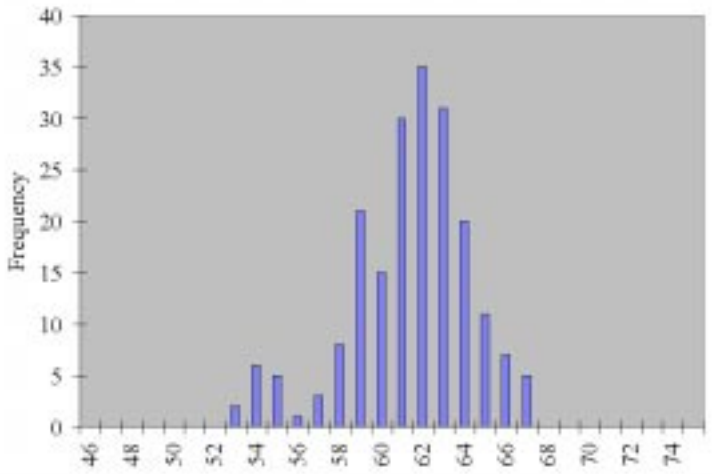
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	408
2	785000	795
3	785000	1225
4	785000	1766
5	785000	2483
6	785000	3443
7	785000	4712
8	785000	6356
9	785000	8442
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 70**

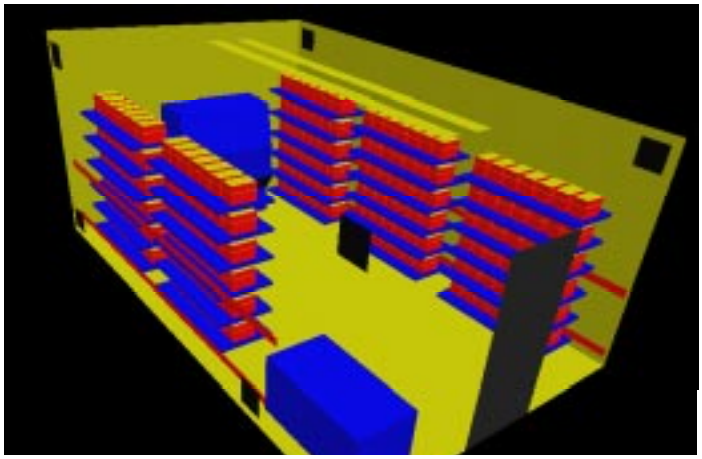
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	High x4 / Low x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.89	73.20	1955	61.79%
S.D.	0.39	0.71	371	2.32%
Max.	23.83	74.90	2741	66.48%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.02	1.98	3.05	4.58	6.66	9.36	13.08	17.32	22.53	28.44
Max.	1.43	2.77	4.28	6.42	9.33	13.12	18.33	24.28	31.58	39.88

Room Breathing Zone

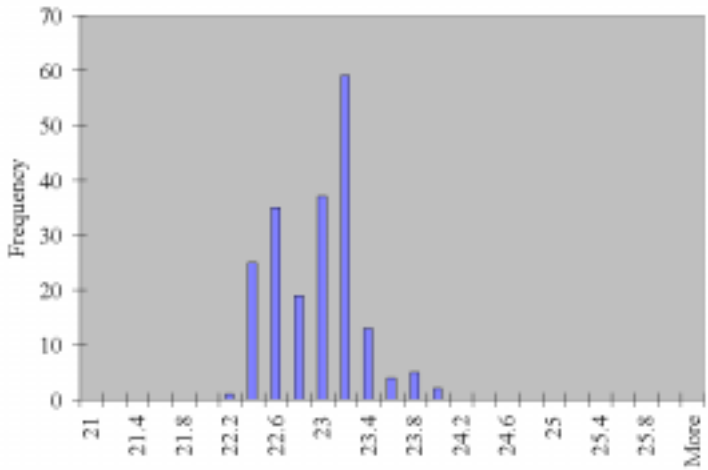
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.45	70.60	24	51.36%
S.D.	0.37	0.67	14	
Max.	22.53	72.55	122	

Room Breathing Zone NH3 (ppm)

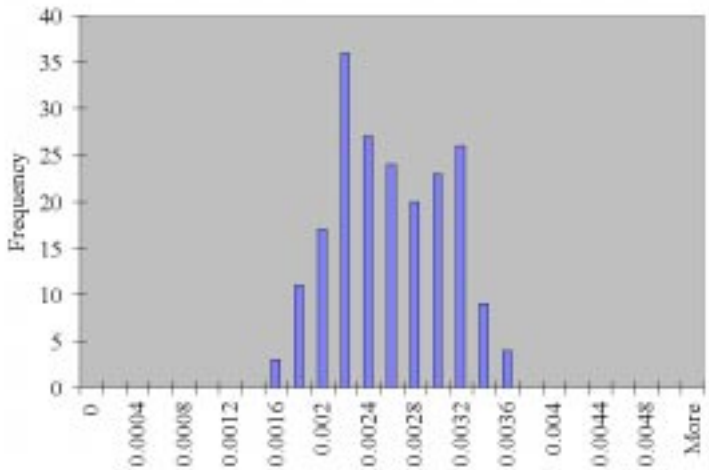
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.01	0.02	0.04	0.06	0.08	0.11	0.16	0.21	0.28	0.35
Max.	0.06	0.12	0.19	0.29	0.42	0.58	0.82	1.08	1.41	1.78

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



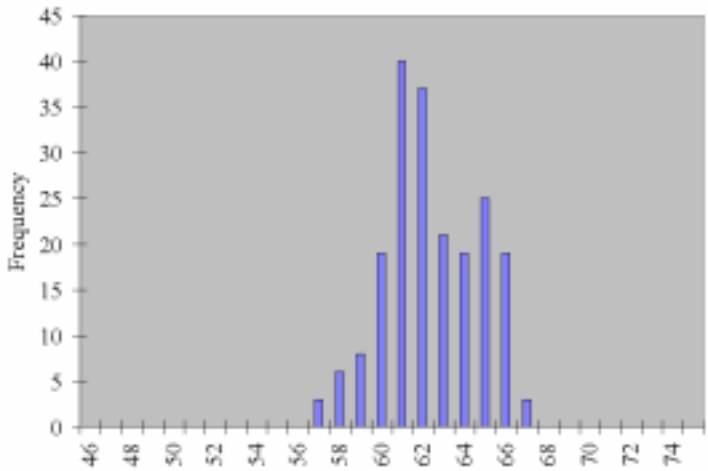
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	410
2	785000	795
3	785000	1225
4	785000	1839
5	785000	2673
6	785000	3758
7	785000	5250
8	785000	6954
9	785000	9045
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 71**

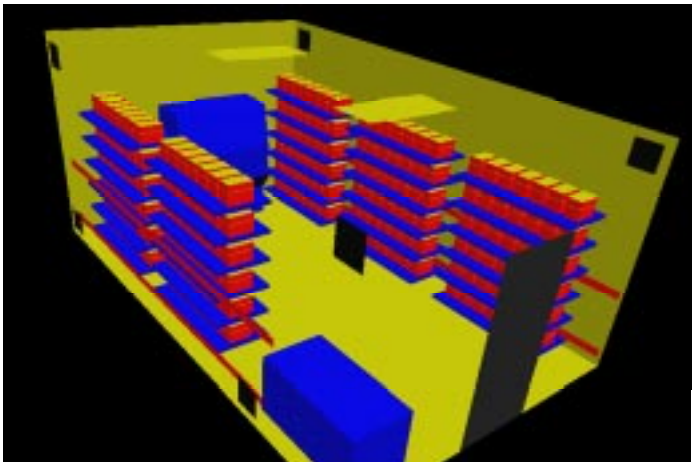
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Low Ind	18.8	61%	High x4 / Low x4	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.97	73.35	1968	61.59%
S.D.	0.38	0.69	339	2.42%
Max.	23.95	75.10	2683	66.10%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.03	1.99	3.07	4.56	6.58	9.22	12.82	17.06	22.30	28.39
Max.	1.40	2.72	4.19	6.22	8.97	12.58	17.48	23.26	30.40	38.70

Room Breathing Zone

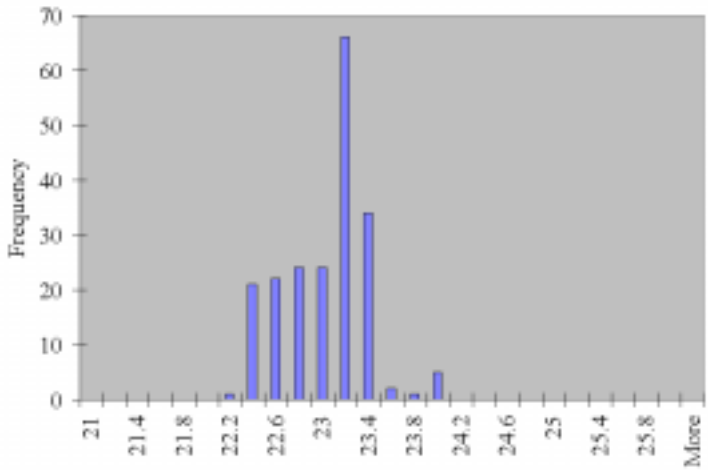
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.56	70.81	51	51.22%
S.D.	0.33	0.59	25	
Max.	22.41	72.35	305	

Room Breathing Zone NH3 (ppm)

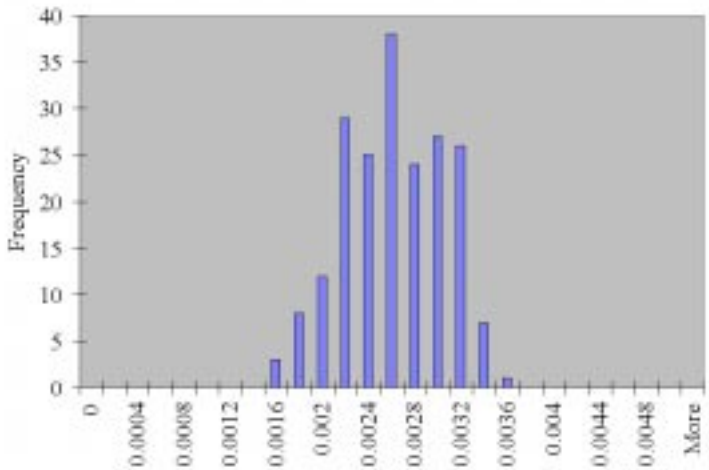
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.08	0.12	0.17	0.24	0.34	0.45	0.58	0.74
Max.	0.16	0.31	0.48	0.71	1.02	1.43	1.99	2.65	3.46	4.40

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



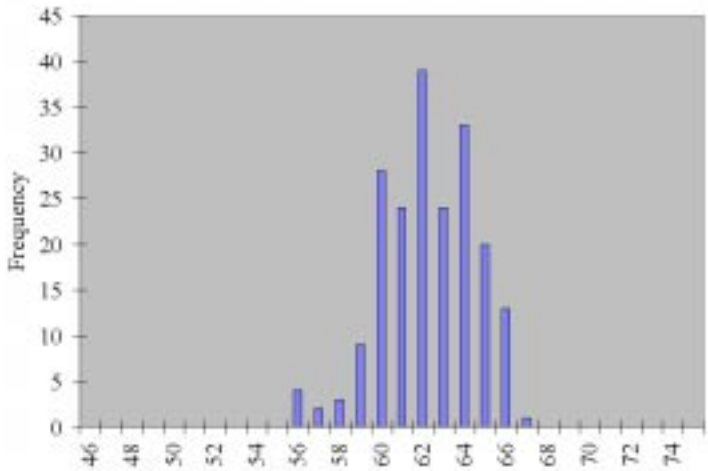
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	409
2	785000	795
3	785000	1225
4	785000	1821
5	785000	2626
6	785000	3680
7	785000	5116
8	785000	6805
9	785000	8894
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 72**

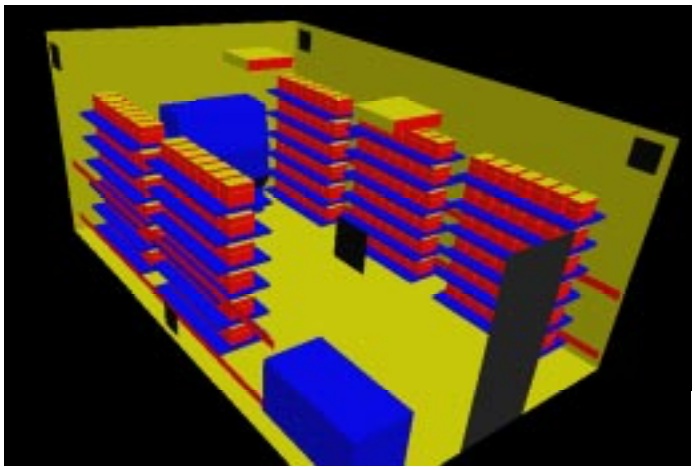
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Radial	18.8	61%	High x4 / Low x2	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.53	72.56	1790	61.90%
S.D.	0.31	0.55	355	2.67%
Max.	23.69	74.65	2663	67.80%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	0.93	1.81	2.79	4.22	6.15	8.67	12.14	16.04	20.81	26.16
Max.	1.39	2.69	4.15	6.27	9.16	12.90	18.06	23.87	30.96	38.92

Room Breathing Zone

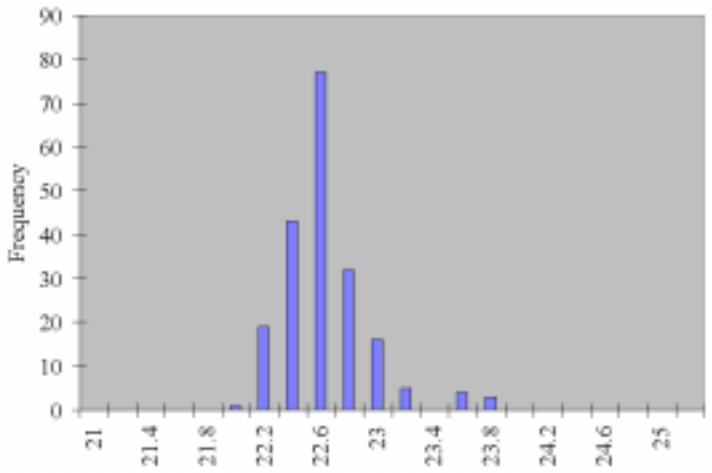
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.06	69.91	48	52.83%
S.D.	0.23	0.42	29	
Max.	21.79	71.23	253	

Room Breathing Zone NH3 (ppm)

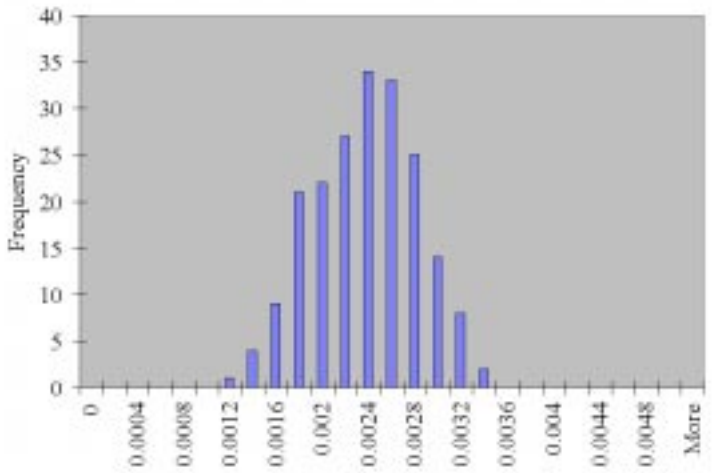
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.03	0.05	0.07	0.11	0.17	0.23	0.33	0.43	0.56	0.70
Max.	0.13	0.26	0.40	0.60	0.87	1.23	1.72	2.27	2.95	3.70

Histogram Distributions

Cage occupied zone average temperature (°C) distribution



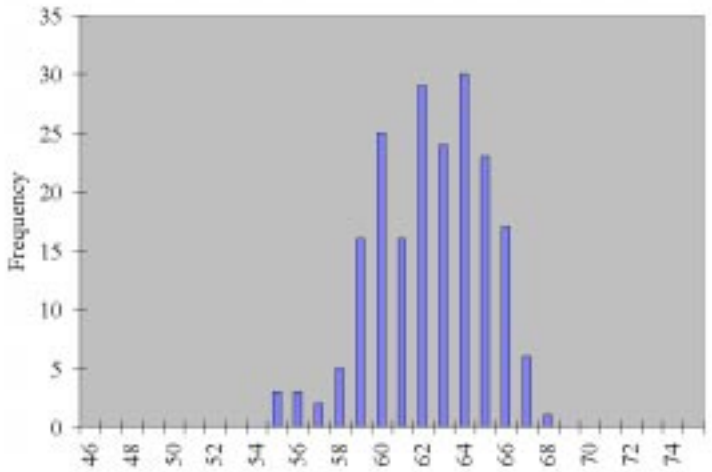
Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	418
2	785000	795
3	785000	1225
4	785000	2303
5	785000	3876
6	785000	5752
7	785000	8650
8	785000	10734
9	785000	12856
10	785000	11384

Cage occupied zone average relative humidity (%) distribution



Casename **Case 73**

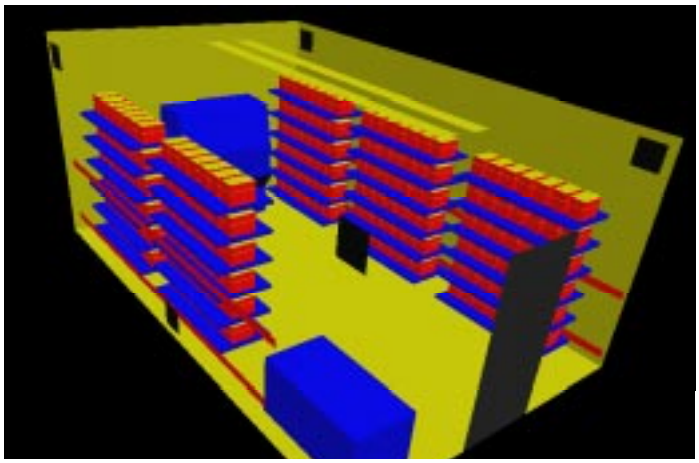
Description

Supply Configuration	Supply Discharge Temperature (°C)	Supply Discharge RH	Exhaust Configuration	Exhaust Temperature (°C)	Exhaust RH
Slot	18.8	61%	High x4 / Low x2	22	50%

Change Station	Rack Orientation	Rack Density	Number of Mice in Room	Total mass of Mice in Room	Room Pressurisation
ON	On wall	Single	1050	21000 gr	neg 100cfm

Room ACH
15

Cage Condition
Top On



Analysis Results

Cage Occupied Zone

	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	22.62	72.71	1966	62.95%
S.D.	0.33	0.59	397	2.62%
Max.	23.53	74.35	2701	67.74%

Cage Occupied Zone NH3 (ppm)

Day	1	2	3	4	5	6	7	8	9	10
Mean	1.03	1.99	3.07	4.87	7.39	10.57	15.12	19.61	24.86	30.01
Max.	1.42	2.73	4.22	6.70	10.16	14.53	20.78	26.95	34.17	41.25

Room Breathing Zone

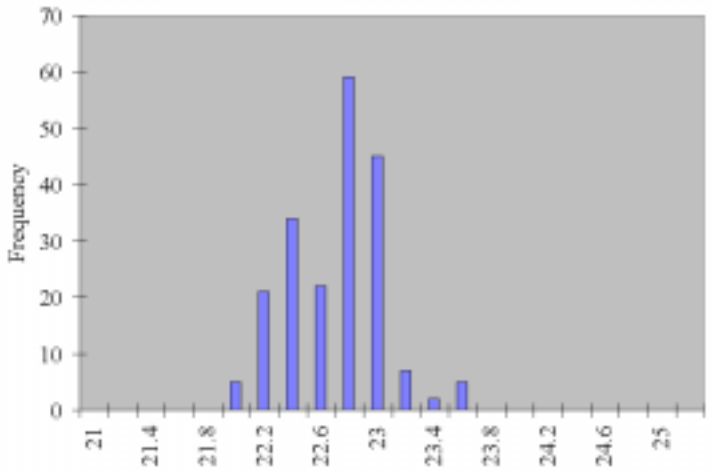
	Temperature		CO_2	RH
	°C	°F	(ppm)	
Mean	21.11	69.99	37	52.59%
S.D.	0.30	0.54	17	
Max.	22.05	71.69	146	

Room Breathing Zone NH3 (ppm)

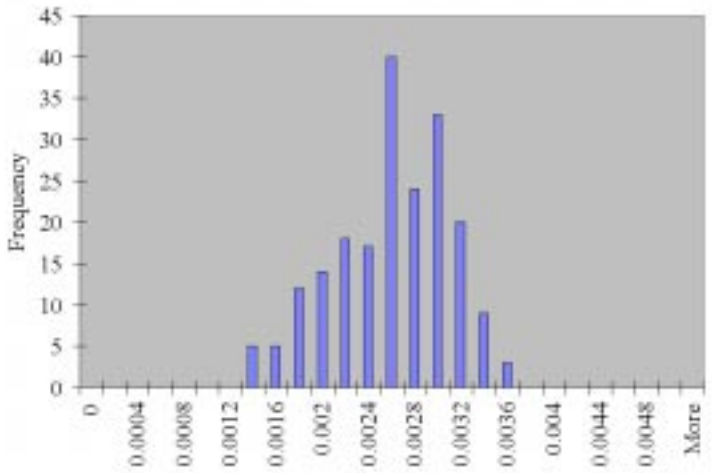
Day	1	2	3	4	5	6	7	8	9	10
Mean	0.02	0.04	0.06	0.09	0.14	0.20	0.28	0.37	0.47	0.56
Max.	0.08	0.15	0.23	0.36	0.55	0.78	1.12	1.45	1.84	2.22

Histogram Distributions

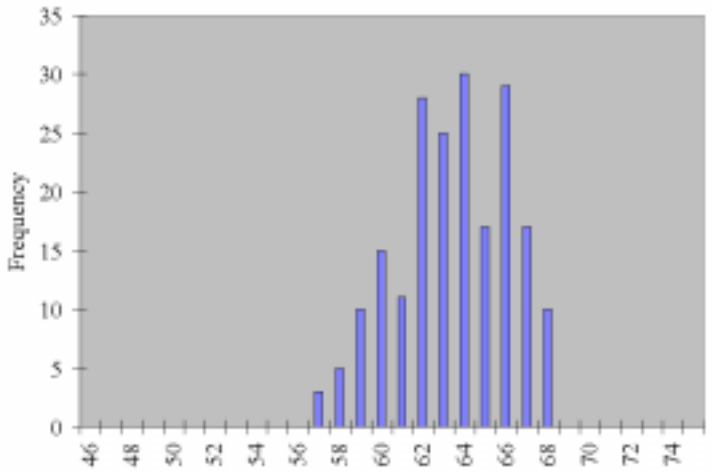
Cage occupied zone average temperature (°C) distribution



Cage occupied zone average contamination (kg/kg) distribution



Contamination conversion factors (kg/kg → ppm)

Day	CO_2	NH_3
1	785000	412
2	785000	795
3	785000	1225
4	785000	1947
5	785000	2952
6	785000	4221
7	785000	6038
8	785000	7831
9	785000	9929
10	785000	11384

Cage occupied zone average relative humidity (%) distribution