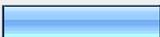
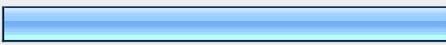
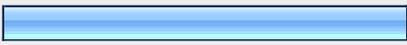


# RAC Contractors Survey

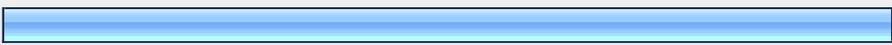
1. In what license categories does your company hold a California Contractors License (check all that apply)?			
		Response Percent	Response Count
No California Contractors License		36.2%	17
Refrigeration – C-38		29.8%	14
Warm-Air Heating, Ventilating & Air Conditioning C-20		63.8%	30
Other		17.0%	8
<i>answered question</i>			<b>47</b>
<i>skipped question</i>			<b>4</b>

2. How many refrigeration and air-conditioning service technicians do you employ and how many are certified in each technician certification type (Please include yourself if you are a certified technician)?						
	1	2-5	6-10	11-20	Greater than 20	Response Count
Not US EPA certified	12.5% (1)	<b>50.0% (4)</b>	12.5% (1)	0.0% (0)	25.0% (2)	8
Type I	<b>50.0% (2)</b>	<b>50.0% (2)</b>	0.0% (0)	0.0% (0)	0.0% (0)	4
Type II	28.6% (2)	<b>42.9% (3)</b>	28.6% (2)	0.0% (0)	0.0% (0)	7
Type III	28.6% (2)	<b>57.1% (4)</b>	14.3% (1)	0.0% (0)	0.0% (0)	7
Universal	26.7% (12)	<b>40.0% (18)</b>	20.0% (9)	4.4% (2)	8.9% (4)	45
NATE (North American Technician Excellence)	22.2% (4)	<b>61.1% (11)</b>	11.1% (2)	0.0% (0)	5.6% (1)	18
Other (please specify)						3
<i>answered question</i>						<b>49</b>
<i>skipped question</i>						<b>2</b>

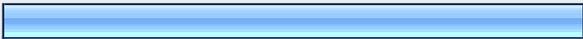
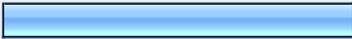
**3. What is your primary business activity (check all that apply)?**

		Response Percent	Response Count
Residential/Light Commercial Refrigeration		48.9%	22
Commercial/Industrial Refrigeration		42.2%	19
Commercial/Industrial Air Conditioning		44.4%	20
Other (please specify)			8
		<b>answered question</b>	<b>45</b>
		<b>skipped question</b>	<b>6</b>

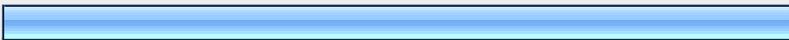
**4. Do all your current technicians have access to US EPA approved refrigerant recovery and recycling equipment for refrigerants?**

		Response Percent	Response Count
Yes		97.9%	47
No (If no, skip question 5.)		2.1%	1
		<b>answered question</b>	<b>48</b>
		<b>skipped question</b>	<b>3</b>

**5. What US EPA approved refrigerant recovery and recycling equipment do your technicians have access to? (check all that apply)**

		Response Percent	Response Count
Small Appliances		59.6%	28
High Pressure Appliances-over 200 pounds of refrigerant		36.2%	17
<b>High Pressure Appliances-under 200 pounds of refrigerant</b>		<b>63.8%</b>	<b>30</b>
Low Pressure Appliances		38.3%	18
		<b>answered question</b>	<b>47</b>
		<b>skipped question</b>	<b>4</b>

**6. Do you install and service automatic leak detection systems that measure changes in a R/AC system's refrigerant level?**

		Response Percent	Response Count
Yes		13.0%	6
<b>No (go to question #3)</b>		<b>87.0%</b>	<b>40</b>
		<b>answered question</b>	<b>46</b>
		<b>skipped question</b>	<b>5</b>

**7. What is the average equipment and installation costs for an automatic leak detection system that measures changes in a R/AC system's refrigerant level?**

	\$Under \$2,500	\$2,500-\$5,000	\$5,001-\$10,000	Over \$10,000	Response Count	
Refrigeration - Initial Installation	20.0% (1)	0.0% (0)	<b>40.0% (2)</b>	<b>40.0% (2)</b>	5	
Refrigeration - Retrofit Installation	0.0% (0)	0.0% (0)	33.3% (1)	<b>66.7% (2)</b>	3	
Air Conditioning - Initial Installation	<b>33.3% (1)</b>	0.0% (0)	<b>33.3% (1)</b>	<b>33.3% (1)</b>	3	
Air Conditioning - Retrofit Installation	0.0% (0)	0.0% (0)	<b>50.0% (1)</b>	<b>50.0% (1)</b>	2	
					<b>answered question</b>	<b>6</b>
					<b>skipped question</b>	<b>45</b>

8. Do you install and service automatic leak detection systems that measures the refrigerant level in the air in a room?			Response Percent	Response Count
Yes			21.7%	10
No (If no, select done on the bottom of this page to go to next page)			78.3%	36
			<i>answered question</i>	<b>46</b>
			<i>skipped question</i>	<b>5</b>

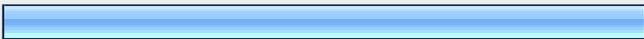
9. What is the average equipment and installation cost for an automatic leak detection system that measures the refrigerant level in the air in a room, including all sensors?						
	\$Under \$2,500	\$2,500 to \$5,000	\$5,001 to \$10,000	Over \$10,000	Response Count	
Refrigeration - Initial Installation	25.0% (2)	<b>37.5% (3)</b>	25.0% (2)	12.5% (1)	8	
Refrigeration - Retrofit Installation	20.0% (1)	<b>40.0% (2)</b>	20.0% (1)	20.0% (1)	5	
Air Conditioning - Initial Installation	16.7% (1)	16.7% (1)	<b>50.0% (3)</b>	16.7% (1)	6	
Air Conditioning - Retrofit Installation	16.7% (1)	0.0% (0)	<b>50.0% (3)</b>	33.3% (2)	6	
					<i>answered question</i>	<b>10</b>
					<i>skipped question</i>	<b>41</b>

**10. What is the average number of sensors that are used in an automatic leak detection system that measures the refrigerant level in the air in a room?**

	1	2-3	4-5	6-10	Greater than 10	Response Count
Parallel Rack Refrigeration System	0.0% (0)	<b>50.0% (4)</b>	<b>50.0% (4)</b>	0.0% (0)	0.0% (0)	8
Remote Condensing Refrigeration System	28.6% (2)	<b>57.1% (4)</b>	14.3% (1)	0.0% (0)	0.0% (0)	7
Industrial Refrigeration System	16.7% (1)	<b>50.0% (3)</b>	33.3% (2)	0.0% (0)	0.0% (0)	6
Centrifugal Chiller	14.3% (1)	<b>71.4% (5)</b>	14.3% (1)	0.0% (0)	0.0% (0)	7
Packaged Chiller	14.3% (1)	<b>57.1% (4)</b>	28.6% (2)	0.0% (0)	0.0% (0)	7
	<b><i>answered question</i></b>					<b>11</b>
	<b><i>skipped question</i></b>					<b>40</b>

**11. What is the average equipment and installation cost for each additional sensor for an automatic leak detection system that measures the refrigerant level in the air in a room?**

	\$Under \$100	\$101 to \$250	\$251 to \$500	Over \$500	Response Count
Parallel Rack Refrigeration System	12.5% (1)	12.5% (1)	<b>37.5% (3)</b>	<b>37.5% (3)</b>	8
Remote Condensing Refrigeration System	0.0% (0)	28.6% (2)	14.3% (1)	<b>57.1% (4)</b>	7
Industrial Refrigeration System	0.0% (0)	0.0% (0)	20.0% (1)	<b>80.0% (4)</b>	5
Centrifugal Chiller	0.0% (0)	0.0% (0)	16.7% (1)	<b>83.3% (5)</b>	6
Packaged Chiller	0.0% (0)	0.0% (0)	14.3% (1)	<b>85.7% (6)</b>	7
	<b><i>answered question</i></b>				<b>11</b>
	<b><i>skipped question</i></b>				<b>40</b>

12. Do you currently provide commercial/industrial refrigeration system leak inspection or repair services?			Response Percent	Response Count
Yes			70.7%	29
No (If no, select done on the bottom of this page to go to next page)			29.3%	12
			<b>answered question</b>	<b>41</b>
			<b>skipped question</b>	<b>10</b>

13. When you conduct a preventative maintenance leak inspection for the listed types of commercial/industrial refrigeration systems, what process do you use to detect a leak (check all that apply)?						
	Review Refrigerant Use	Visual Inspection	Hand Held Refrigerant Leak Detector	Bubble Test	Response Count	
Self-contained System	69.0% (20)	<b>93.1% (27)</b>	86.2% (25)	65.5% (19)	29	
Parallel Rack System	69.2% (9)	<b>100.0% (13)</b>	84.6% (11)	61.5% (8)	13	
Remote Condensing System	68.0% (17)	<b>92.0% (23)</b>	<b>92.0% (23)</b>	68.0% (17)	25	
Industrial System	76.9% (10)	<b>100.0% (13)</b>	92.3% (12)	61.5% (8)	13	
Other (please specify)					3	
					<b>answered question</b>	<b>30</b>
					<b>skipped question</b>	<b>21</b>

**14. What do you charge for a preventative maintenance leak inspection for the listed types of commercial/industrial refrigeration systems?**

	<b>Under \$150</b>	<b>\$151 to \$250</b>	<b>\$251 to \$350</b>	<b>Greater than \$350</b>	<b>Response Count</b>
Self-contained System	28.6% (8)	<b>42.9% (12)</b>	14.3% (4)	14.3% (4)	28
Parallel Rack System	0.0% (0)	15.4% (2)	<b>46.2% (6)</b>	38.5% (5)	13
Remote Condensing System	12.0% (3)	<b>32.0% (8)</b>	24.0% (6)	<b>32.0% (8)</b>	25
Industrial System	0.0% (0)	6.7% (1)	20.0% (3)	<b>73.3% (11)</b>	15
Other (please specify)					4
<b>answered question</b>					<b>28</b>
<b>skipped question</b>					<b>23</b>

**15. Based on your experience, what is the average parts cost for leak repairs for the listed types of commercial/industrial refrigeration systems?**

	<b>\$1 to \$50</b>	<b>\$51 to \$250</b>	<b>\$251 to \$500</b>	<b>\$501 to \$1,000</b>	<b>Greater than \$1,000</b>	<b>Response Count</b>
Self-contained System	14.3% (4)	<b>42.9% (12)</b>	25.0% (7)	7.1% (2)	10.7% (3)	28
Parallel Rack System	0.0% (0)	18.8% (3)	<b>56.3% (9)</b>	12.5% (2)	12.5% (2)	16
Remote Condensing System	4.0% (1)	<b>40.0% (10)</b>	16.0% (4)	28.0% (7)	12.0% (3)	25
Industrial System	0.0% (0)	11.8% (2)	17.6% (3)	<b>41.2% (7)</b>	29.4% (5)	17
Other (please specify)						1
<b>answered question</b>						<b>29</b>
<b>skipped question</b>						<b>22</b>

**16. What is the average certified technician labor hours required for leak repairs for the listed types of commercial/industrial refrigeration systems?**

	1 to 2	3 to 5	6 to 10	11 to 20	Greater than 20	Response Count
Self-contained System	<b>50.0% (15)</b>	36.7% (11)	10.0% (3)	0.0% (0)	3.3% (1)	30
Parallel Rack System	6.3% (1)	<b>56.3% (9)</b>	31.3% (5)	0.0% (0)	6.3% (1)	16
Remote Condensing System	14.8% (4)	<b>51.9% (14)</b>	22.2% (6)	7.4% (2)	3.7% (1)	27
Industrial System	0.0% (0)	17.6% (3)	<b>52.9% (9)</b>	11.8% (2)	17.6% (3)	17
Other (please specify)						1
<b>answered question</b>						<b>30</b>
<b>skipped question</b>						<b>21</b>

**17. What is the average additional refrigerant charge (in pounds) required for leak repairs for the listed types of commercial/industrial refrigeration systems?**

	1 to 10	11 to 50	51 to 100	101 to 200	Greater than 200	Response Count
Self-contained System	<b>78.6% (22)</b>	10.7% (3)	7.1% (2)	0.0% (0)	3.6% (1)	28
Parallel Rack System	<b>31.3% (5)</b>	25.0% (4)	18.8% (3)	6.3% (1)	18.8% (3)	16
Remote Condensing System	<b>40.0% (10)</b>	36.0% (9)	12.0% (3)	4.0% (1)	8.0% (2)	25
Industrial System	13.3% (2)	20.0% (3)	13.3% (2)	<b>33.3% (5)</b>	20.0% (3)	15
Other (please specify)						2
<b>answered question</b>						<b>28</b>
<b>skipped question</b>						<b>23</b>

**18. Of the time you and your technicians spend repairing leaks in commercial/industrial refrigeration systems, what percentage of time is spent repairing leaks on each of the listed system types? (As an example of frequency of all repairs, Self-contained Systems may be 60% of all repairs and Parallel Rack Systems 40% to total 100% of all repairs.)**

	Less than 20%	21% - 40%	41% to 60%	61% to 80%	Greater than 80%	Response Count
Self-contained System	<b>64.5% (20)</b>	19.4% (6)	3.2% (1)	0.0% (0)	12.9% (4)	31
Parallel Rack System	<b>70.6% (12)</b>	17.6% (3)	5.9% (1)	0.0% (0)	5.9% (1)	17
Remote Condensing System	<b>57.7% (15)</b>	30.8% (8)	3.8% (1)	3.8% (1)	3.8% (1)	26
Industrial System	<b>55.0% (11)</b>	30.0% (6)	5.0% (1)	0.0% (0)	10.0% (2)	20
Other (please specify)						1
<b>answered question</b>						<b>31</b>
<b>skipped question</b>						<b>20</b>

**19. What types of commercial/industrial refrigeration systems are found in each of the listed refrigerant charge size categories (check all that apply)?**

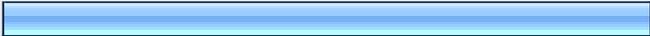
	Refrigerant Charge Less than 50 lbs	Refrigerant Charge Between 50 and 200 lbs	Refrigerant Charge Between 200 and 2,000 lbs	Refrigerant Charge Greater than 2,000 lbs	Response Count
Self-contained System	<b>90.0% (27)</b>	10.0% (3)	0.0% (0)	3.3% (1)	30
Parallel Rack System	18.8% (3)	<b>56.3% (9)</b>	31.3% (5)	6.3% (1)	16
Remote Condensing System	<b>74.1% (20)</b>	22.2% (6)	18.5% (5)	7.4% (2)	27
Industrial System	22.2% (4)	33.3% (6)	<b>50.0% (9)</b>	16.7% (3)	18
Other (please specify)					1
<b>answered question</b>					<b>30</b>
<b>skipped question</b>					<b>21</b>

**20. What commercial/industrial refrigeration system components are most often serviced for leak repairs for the listed types of commercial/industrial refrigeration systems?**

	Compressors	Coils	Evaporators	Joints	Valves	Response Count
Self-contained System	3.6% (1)	21.4% (6)	<b>39.3% (11)</b>	21.4% (6)	14.3% (4)	28
Parallel Rack System	6.3% (1)	12.5% (2)	25.0% (4)	<b>31.3% (5)</b>	25.0% (4)	16
Remote Condensing System	4.0% (1)	<b>28.0% (7)</b>	20.0% (5)	24.0% (6)	24.0% (6)	25
Industrial System	0.0% (0)	12.5% (2)	25.0% (4)	<b>31.3% (5)</b>	<b>31.3% (5)</b>	16
Other (please specify)						3
<b>answered question</b>						<b>29</b>
<b>skipped question</b>						<b>22</b>

**21. How long does a commercial/industrial refrigeration system refrigerant leak repair last before a component is likely to require additional repair?**

	Compressors	Coils	Evaporators	Joints	Valves	Response Count
Less than 6 Months	<b>27.3% (3)</b>	9.1% (1)	<b>27.3% (3)</b>	9.1% (1)	<b>27.3% (3)</b>	11
6 to 12 Months	16.7% (2)	16.7% (2)	<b>25.0% (3)</b>	16.7% (2)	<b>25.0% (3)</b>	12
1 to 2 Years	13.3% (2)	20.0% (3)	26.7% (4)	<b>33.3% (5)</b>	6.7% (1)	15
2 to 4 Years	<b>26.7% (4)</b>	13.3% (2)	13.3% (2)	20.0% (3)	<b>26.7% (4)</b>	15
Greater than 4 Years	<b>33.3% (7)</b>	9.5% (2)	19.0% (4)	14.3% (3)	23.8% (5)	21
Other (please specify)						5
<b>answered question</b>						<b>27</b>
<b>skipped question</b>						<b>24</b>

22. Do you currently provide commercial air-conditioning system leak inspection or repair services?			Response Percent	Response Count
Yes			71.4%	25
No (If no, select done on the bottom of this page to go to next page)			28.6%	10
			<b>answered question</b>	<b>35</b>
			<b>skipped question</b>	<b>16</b>

23. When you conduct a preventative maintenance leak inspection for the listed types of commercial air-conditioning systems, what process do you use to detect a leak (check all that apply)?						
	Review Refrigerant Use	Visual Inspection	Hand Held Refrigerant Leak Detector	Bubble Test	Response Count	
Centrifugal Chiller	66.7% (6)	77.8% (7)	<b>88.9% (8)</b>	33.3% (3)	9	
Packaged Chiller	66.7% (10)	86.7% (13)	<b>100.0% (15)</b>	60.0% (9)	15	
Unitary Air-conditioning System	60.9% (14)	91.3% (21)	<b>100.0% (23)</b>	78.3% (18)	23	
Split Air-conditioning System	65.2% (15)	91.3% (21)	<b>100.0% (23)</b>	73.9% (17)	23	
Other (please specify)					4	
					<b>answered question</b>	<b>24</b>
					<b>skipped question</b>	<b>27</b>

**24. What do you charge for a preventative maintenance leak inspection for the listed types of commercial air-conditioning systems?**

	<b>Under \$150</b>	<b>\$151 to \$250</b>	<b>\$251 to \$350</b>	<b>Greater than \$350</b>	<b>Response Count</b>
Centrifugal Chiller	10.0% (1)	20.0% (2)	0.0% (0)	<b>70.0% (7)</b>	10
Packaged Chiller	13.3% (2)	13.3% (2)	20.0% (3)	<b>53.3% (8)</b>	15
Unitary Air-conditioning System	13.6% (3)	<b>31.8% (7)</b>	22.7% (5)	<b>31.8% (7)</b>	22
Split Air-conditioning System	9.5% (2)	28.6% (6)	23.8% (5)	<b>38.1% (8)</b>	21
Other (please specify)					2
<b>answered question</b>					<b>23</b>
<b>skipped question</b>					<b>28</b>

**25. Based on your experience, what is the average parts cost for leak repairs for the listed types of commercial air-conditioning systems?**

	<b>\$1 to \$50</b>	<b>\$51 to \$250</b>	<b>\$251 to \$500</b>	<b>\$501 to \$1,000</b>	<b>Greater than \$1,000</b>	<b>Response Count</b>
Centrifugal Chiller	0.0% (0)	10.0% (1)	10.0% (1)	<b>50.0% (5)</b>	30.0% (3)	10
Packaged Chiller	0.0% (0)	13.3% (2)	<b>40.0% (6)</b>	13.3% (2)	33.3% (5)	15
Unitary Air-conditioning System	19.0% (4)	4.8% (1)	<b>42.9% (9)</b>	14.3% (3)	19.0% (4)	21
Split Air-conditioning System	13.6% (3)	9.1% (2)	<b>45.5% (10)</b>	18.2% (4)	13.6% (3)	22
Other (please specify)						1
<b>answered question</b>						<b>23</b>
<b>skipped question</b>						<b>28</b>

**26. What is the average certified technician labor hours required for leak repairs for the listed types of commercial air-conditioning systems?**

	1 to 2	3 to 5	6 to 10	11 to 20	Greater than 20	Response Count
Centrifugal Chiller	0.0% (0)	18.2% (2)	<b>45.5% (5)</b>	18.2% (2)	18.2% (2)	11
Packaged Chiller	0.0% (0)	<b>40.0% (6)</b>	<b>40.0% (6)</b>	0.0% (0)	20.0% (3)	15
Unitary Air-conditioning System	18.2% (4)	31.8% (7)	<b>40.9% (9)</b>	4.5% (1)	4.5% (1)	22
Split Air-conditioning System	21.7% (5)	<b>39.1% (9)</b>	34.8% (8)	0.0% (0)	4.3% (1)	23
Other (please specify)						1
<b>answered question</b>						<b>24</b>
<b>skipped question</b>						<b>27</b>

**27. What is the average additional refrigerant charge (in pounds) required for leak repairs for the listed types of commercial air-conditioning systems?**

	1 to 10	11 to 50	51 to 100	101 to 200	Greater than 200	Response Count
Centrifugal Chiller	0.0% (0)	10.0% (1)	20.0% (2)	<b>50.0% (5)</b>	20.0% (2)	10
Packaged Chiller	0.0% (0)	<b>46.7% (7)</b>	26.7% (4)	20.0% (3)	6.7% (1)	15
Unitary Air-conditioning System	<b>47.6% (10)</b>	38.1% (8)	4.8% (1)	0.0% (0)	9.5% (2)	21
Split Air-conditioning System	<b>40.9% (9)</b>	<b>40.9% (9)</b>	9.1% (2)	0.0% (0)	9.1% (2)	22
Other (please specify)						1
<b>answered question</b>						<b>23</b>
<b>skipped question</b>						<b>28</b>

**28. Of the time you and your technicians spend repairing leaks in commercial air-conditioning systems, what percentage of time is spent repairing leaks on each of the listed system types? (As an example of frequency of all repairs, Centrifugal Chillers may be 60% of all repairs and Split Air conditioning System 40% to total 100% of all repairs.)**

	Less than 20%	21% - 40%	41% to 60%	61% to 80%	Greater than 80%	Response Count
Centrifugal Chiller	<b>80.0% (8)</b>	10.0% (1)	0.0% (0)	0.0% (0)	10.0% (1)	10
Packaged Chiller	<b>75.0% (12)</b>	12.5% (2)	6.3% (1)	0.0% (0)	6.3% (1)	16
Unitary Air-conditioning System	<b>68.2% (15)</b>	18.2% (4)	4.5% (1)	0.0% (0)	9.1% (2)	22
Split Air-conditioning System	<b>60.9% (14)</b>	13.0% (3)	13.0% (3)	4.3% (1)	8.7% (2)	23
Other (please specify)						1
<b>answered question</b>						<b>24</b>
<b>skipped question</b>						<b>27</b>

**29. What types of commercial air-conditioning systems are found in each of the listed refrigerant charge size categories (check all that apply)?**

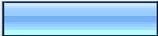
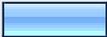
	Refrigerant Charge Less than 50 lbs	Refrigerant Charge Between 50 and 200 lbs	Refrigerant Charge Between 200 and 2,000 lbs	Refrigerant Charge Greater than 2,000 lbs	Response Count
Centrifugal Chiller	8.3% (1)	<b>50.0% (6)</b>	33.3% (4)	25.0% (3)	12
Packaged Chiller	17.6% (3)	<b>76.5% (13)</b>	23.5% (4)	5.9% (1)	17
Unitary Air-conditioning System	<b>77.3% (17)</b>	18.2% (4)	4.5% (1)	4.5% (1)	22
Split Air-conditioning System	<b>77.3% (17)</b>	18.2% (4)	9.1% (2)	4.5% (1)	22
Other (please specify)					1
<b>answered question</b>					<b>23</b>
<b>skipped question</b>					<b>28</b>

**30. What commercial air-conditioning system components are most often serviced for leak repairs for the listed types of commercial air-conditioning systems?**

	Compressors	Coils	Evaporators	Joints	Valves	Response Count
Centrifugal Chiller	16.7% (2)	16.7% (2)	8.3% (1)	<b>41.7% (5)</b>	16.7% (2)	12
Packaged Chiller	0.0% (0)	29.4% (5)	0.0% (0)	23.5% (4)	<b>47.1% (8)</b>	17
Unitary Air-conditioning System	0.0% (0)	<b>50.0% (11)</b>	9.1% (2)	31.8% (7)	9.1% (2)	22
Split Air-conditioning System	0.0% (0)	<b>45.5% (10)</b>	4.5% (1)	40.9% (9)	9.1% (2)	22
Other (please specify)						1
<b>answered question</b>						<b>24</b>
<b>skipped question</b>						<b>27</b>

**31. How long does a commercial air-conditioning system refrigerant leak repair last before a component is likely to require additional repair?**

	Compressors	Coils	Evaporators	Joints	Valves	Response Count
Less than 6 Months	0.0% (0)	14.3% (1)	0.0% (0)	28.6% (2)	<b>57.1% (4)</b>	7
6 to 12 Months	14.3% (1)	0.0% (0)	<b>28.6% (2)</b>	<b>28.6% (2)</b>	<b>28.6% (2)</b>	7
1 to 2 Years	0.0% (0)	18.2% (2)	27.3% (3)	<b>36.4% (4)</b>	18.2% (2)	11
2 to 4 Years	14.3% (2)	<b>28.6% (4)</b>	<b>28.6% (4)</b>	21.4% (3)	7.1% (1)	14
Greater than 4 Years	<b>47.1% (8)</b>	23.5% (4)	5.9% (1)	17.6% (3)	5.9% (1)	17
Other (please specify)						2
<b>answered question</b>						<b>21</b>
<b>skipped question</b>						<b>30</b>

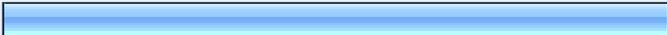
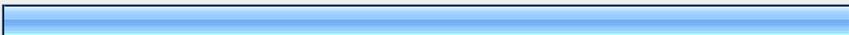
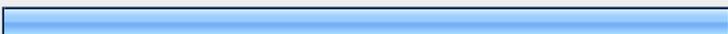
32. How do you manage empty non-refillable refrigerant cylinders (check all that apply)?			
		Response Percent	Response Count
Provide to Refrigerant Distributor		16.7%	6
Provide to Refrigerant Reclaimer		11.1%	4
<b>Provide to Metals Recycler for Recycling</b>		<b>38.9%</b>	<b>14</b>
Dispose in Refuse		36.1%	13
Other (please specify)		8.3%	3
		<b>answered question</b>	<b>36</b>
		<b>skipped question</b>	<b>15</b>

33. What percentage of commercial/industrial refrigeration systems require "additional" refrigerant charge to adjust for changes in the weather (seasonal adjustments) at any time during the year?					
	0%	1% to 10%	11% to 25%	Greater than 25%	Response Count
Self-contained System	<b>65.6% (21)</b>	28.1% (9)	0.0% (0)	6.3% (2)	32
Parallel Rack System	<b>60.0% (12)</b>	10.0% (2)	20.0% (4)	10.0% (2)	20
Remote Condensing System	<b>61.3% (19)</b>	22.6% (7)	9.7% (3)	6.5% (2)	31
Industrial System	<b>60.9% (14)</b>	13.0% (3)	17.4% (4)	8.7% (2)	23
Other (please specify)					2
<b>answered question</b>					<b>32</b>
<b>skipped question</b>					<b>19</b>

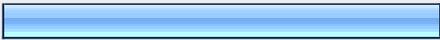
**34. What percentage of commercial/industrial refrigeration systems require a "reduction" of the refrigerant charge to adjust for changes in the weather (seasonal adjustments) at any time during the year?**

	0%	1% to 10%	11% to 25%	Greater than 25%	Response Count
Self-contained System	<b>80.6% (25)</b>	12.9% (4)	3.2% (1)	3.2% (1)	31
Parallel Rack System	<b>81.0% (17)</b>	9.5% (2)	4.8% (1)	4.8% (1)	21
Remote Condensing System	<b>70.0% (21)</b>	23.3% (7)	3.3% (1)	3.3% (1)	30
Industrial System	<b>81.8% (18)</b>	9.1% (2)	4.5% (1)	4.5% (1)	22
				Other (please specify)	2
				<b>answered question</b>	<b>31</b>
				<b>skipped question</b>	<b>20</b>

**35. Optional Information**

		Response Percent	Response Count
Company Name:		80.0%	12
Contact:		73.3%	11
E-mail:		<b>93.3%</b>	<b>14</b>
Phone Number:		80.0%	12
		<b>answered question</b>	<b>15</b>
		<b>skipped question</b>	<b>36</b>

**36. Would you like to be included in the Refrigerant Management Program mail list to obtain future notices regarding this program?**

		Response Percent	Response Count
Yes		48.0%	12
No		52.0%	13
Comments:			3
<i>answered question</i>			<b>25</b>
<i>skipped question</i>			<b>26</b>