EPA 608 Cheat Sheet

The third column is a wrong answer you will meet: a value older study materials still print, or the neighboring number the exam pairs it with.

The exam itself

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
25 per section	Core, Type 1, Type 2 and Type 3 each have 25 questions. Universal is all 100	
18 of 25	Pass mark on every proctored section (the certifying organizations' grading)	21 of 25, which is the mail-in Type 1 mark
21 of 25	Pass mark on the open-book, mail-in Type 1 test. A mail-in Type 1 pass can't be used for Universal	18 of 25
Open-book Core	Some organizations offer it, but it can't be used for Universal certification	"Counts the same as proctored Core"
Never expires	Section 608 certification is a lifetime credential	A renewal every few years
608 vs 609	608 covers stationary equipment. 609 covers motor vehicle air conditioning	

Core: the law, recovery and cylinders

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
July 1, 1992	The venting ban on CFC and HCFC refrigerants takes effect	November 15, 1995
November 15, 1995	The venting ban covers substitutes such as HFCs, R-410A included (CAA §608(c)(2))	July 1, 1992
1987	Montreal Protocol signed (September 16, 1987)	
$124,426	Maximum civil penalty per day, per violation (40 CFR 19.4, penalties assessed from January 8, 2025)	$44,539, an older administrative figure some guides still print
De minimis	Small releases during a good-faith recovery attempt that follows the required practices, with certified equipment, are not a violation. The rule names no amount	A fixed ounce or pound limit
CO2, nitrogen, water	May be vented in any application. Ammonia only in commercial, industrial process or absorption systems	"CO2 is exempt because it is a very high-pressure gas"
Recovery order	Identify the refrigerant, use a certified recovery machine and a one-refrigerant cylinder, take liquid first, then vapor to the required level, and stop at 80% full	Mixing two refrigerants in one cylinder
80% by weight	Fill limit for a recovery cylinder (AHRI Guideline K, industry guidance)	90%, which is a Type 1 recovery level
Refillable DOT cylinder	Recovery cylinders are refillable DOT cylinders, gray with a yellow top by the Guideline K color code (a guideline, not law)	A disposable (DOT 39) cylinder
Every 5 years	Requalification of a refillable recovery cylinder (AHRI Guideline K, citing 49 CFR Part 180)	
AHRI 700	Purity standard for reclaimed refrigerant. Needed before recovered refrigerant is sold to a different owner	"Recycled refrigerant can be sold to another owner"
Same owner	Recovered refrigerant can go back into the same appliance, or another one the same person owns, without reclaim (§82.156(h))	"Every recovered charge must be reclaimed"
November 15, 1993	Recovery and recycling equipment made on or after this date must be certified by an EPA-approved testing organization (§82.158). Older equipment is grandfathered if it meets Table 2	
45 psia at 104°F	Pressure classes go by liquid saturation pressure at 104°F: low below 45 psia, medium 45 to 170, high 170 to 355, very high above 355 (§82.152)	Classing by boiling point, the pre-2016 rule

Refrigerant families and safety classes

REFRIGERANT	FAMILY	SAFETY CLASS	WHAT TO KNOW
R-11, R-12	CFC		R-11 is low-pressure (Type 3). R-12 is medium-pressure (Type 2)
R-22	HCFC		Production and import ended January 1, 2020
R-123	HCFC		Low-pressure. Still produced to service existing chillers until 2030
R-134a, R-410A	HFC, HFC blend		Under the venting ban since November 15, 1995. R-410A is still sold to service existing systems
R-32, R-454B	HFC, HFC/HFO blend	A2L	Lower-GWP refrigerants in new air conditioning
R-290, R-600a	Hydrocarbon	A3	May be vented only in listed end uses, such as household refrigerators
R-717 (ammonia)	Inorganic	B2L	Exempt from the venting ban only in commercial, industrial process or absorption systems

Reading a safety class: the letter is toxicity (A lower, B higher) and the number is flammability (1 no flame spread, 2L lower flammability, 2 flammable, 3 highly flammable).

Type 1: small appliances

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
5 lb or less	A small appliance is fully manufactured, charged and hermetically sealed in a factory with 5 lb of refrigerant or less (§82.152)	Any unit with 5 lb or less, even one charged in the field

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
90%	Recovery required with the compressor operating (recovery equipment made on or after November 15, 1993)	80%
80%	Recovery required with the compressor not operating, and with any recovery equipment made before November 15, 1993	90%
4 in. Hg	The alternative: pull a 4 in. Hg vacuum instead of measuring the percentage	A mm Hg level, which is Type 3's unit
System-dependent recovery	Uses components contained in the appliance, such as its compressor, to move refrigerant into the container. Allowed on small appliances	"Only self-contained machines are allowed"
150 g (5.3 oz)	Hydrocarbon charge limit per circuit in new household refrigerators, since September 7, 2018	57 g, the 2011 limit, or 2 lb
Disposal	Recovering refrigerant from a small appliance before disposal does not by itself require Section 608 certification	"Any refrigerant removal needs a Type 1 card"

Type 2: leak rates and evacuation levels

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
50 lb	Leak repair rules cover appliances with 50 lb or more of CFC or HCFC refrigerant	15 lb, which is the HFC trigger
15 lb, GWP above 53	Since January 1, 2026, AIM Act rules (40 CFR 84.106, not Section 608) apply similar leak repair rules to HFC appliances of 15 lb or more. Residential and light commercial AC and heat pumps are excluded	"Every R-410A system over 15 lb", home AC included
10%	Leak-rate trigger for comfort cooling	20%
20%	Leak-rate trigger for commercial refrigeration	10%
30%	Leak-rate trigger for industrial process refrigeration	35%, the pre-2019 threshold
30 days	Repair deadline once the leak rate is over the trigger	120 days, which needs an industrial process shutdown
120 days	Repair deadline only when an industrial process shutdown is required	"Any owner can take 120 days"
10 days	Follow-up verification test, within 10 days of a successful initial verification, for every appliance under the rules	"Only for systems of 200 lb or more"
30 days, then 1 year	Retrofit or retirement plan: write it within 30 days, finish within 1 year	18 months, which applies only when retiring and replacing with an exempt-refrigerant appliance
0 psig	Before opening for a repair that is not major and is not followed by evacuating to the atmosphere. Also the floor for leaking parts that can't reach the table level	Pulling the table level for every repair

Evacuation levels before a major repair or disposal (§82.156 Table 1)

PRESSURE CLASS	UNDER 200 LB	200 LB OR MORE
Very high-pressure	0 in. Hg	0 in. Hg
High-pressure (R-22, R-410A, R-407C, R-502)	0 in. Hg	10 in. Hg (4 in. Hg with recovery equipment made before November 15, 1993)
Medium-pressure (R-12, R-134a, R-500, R-114)	10 in. Hg (4 in. Hg pre-1993)	15 in. Hg (4 in. Hg pre-1993)

Common wrong answers here: 15 in. Hg for a 200 lb R-502 system (that is the pre-2016 table; R-502 is high-pressure now, so 10 in. Hg), and any level written in psig.

Type 3: low-pressure chillers

NUMBER OR RULE	WHAT IT MEANS	COMMON WRONG ANSWER
25 mm Hg absolute	Recovery level for low-pressure appliances, the same for recovery equipment made before or after November 15, 1993	Inches of Hg (Type 2's unit), or a shallower pre-1993 level
Below 45 psia	The low-pressure class: R-11, R-113, R-123, R-245fa	R-12, which is medium-pressure (Type 2)
10 psig or less	Dry nitrogen pressure for a leak test	15 psig, where the rupture disc bursts
15 psig	The evaporator's rupture disc bursts here	10 psig, the leak-test maximum
Purge unit	Removes air and other non-condensables that leak in, and the moisture that comes with them	
Excessive purging	A sign of a leak: the machine runs in a vacuum, so air leaks in	
R-123	HCFC still produced for servicing existing chillers until 2030	"Production ended in 2020", which is R-22

Three hooks for the numbers people swap

- 10, 20, 30 climbs with the load: comfort cooling, commercial refrigeration, industrial process.
- A running compressor can do more work: 90% when it operates, 80% when it doesn't.
- The unit names the section: in. Hg for Types 1 and 2, mm Hg absolute for Type 3.