Ozone Depleting Substances (ODS) 2020 Updates

CIBO Environmental Meeting - June 10, 2020 Thomas S. Webster, III DuPont

ODS Update

- EPA published final rule regarding non-exempt substitute refrigerants on February 26, 2020 example HFC's
- With the new change effective April 10, 2020, the requirements only apply to only to Class I (CFCs) and Class II (HCFCs) refrigerants. Substitute refrigerants are now exempt!
- The rule rescinds the extension of the leak repair provisions to appliances using non-exempt substitute refrigerants.
- Note 40 CFR 82.157 provisions (including leak repair) was applicable to non-exempt substitutes between 1/1/2020 and 4/10/2020

MAJOR CHANGES – EFFECTIVE April 10, 2020

Effective April 10, 2020, appliances with 50 or more pounds of <u>substitute refrigerants</u> will no longer be subject to the requirements at 40 CFR 82.157, including:

- Repairing appliances that leak above a certain level and conducting verification tests on repairs;
- Periodically inspecting for leaks;
- Reporting chronically leaking appliances to the EPA;
- · Retrofitting or retiring appliances that are not repaired; and
- Maintaining related records

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So, the question is what is a substitute?

EPA Defines this in 40 CFR 82.152

Substitute means any chemical or product, whether existing or new, that is used as a refrigerant to replace a class I or II ozone-depleting substance. Examples include, but are not limited to hydrofluorocarbons, perfluorocarbons, hydrofluoroethers, hydrocarbons, ammonia, carbon dioxide, and blends thereof. As used in this subpart, the term "exempt substitutes" refers to certain substitutes when used in certain end-uses that are specified in §82.154(a)(1) as exempt from the venting prohibition and the requirements of this subpart, and the term "non-exempt substitutes" refers to all other substitutes and end-uses not so specified in §82.154(a)(1).

Reference of All Réfrigérants (can sort by type):

https://en.wikipedia.org/wiki/List_of_refrigerants#Type_and_flammability

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• Example HFCs Include (just a sample):

R-Number	Chemical Name	CAS No.
R-23	Trifluoromethane (Fluoroform)	75-46-7
R-32	Difluoromethane	75-10-5
R-134a	1,1,1,2-Tetrafluoroethane	811-97-2
R-404A	R-125/143a/134a	
R-407A	R-32/125/134a	
R-407C	R-32/125/134a	
R-407F	R-32/125/134a	
R-417A	R-125/134a/600	
R-422A	R-125/134a/600a	
R-422D	R-125/134a/600a	
R-423A	R-134a/227ea	
R-424A	R-125/134a/600a/600/601a	
R-427A	R-32/125/143a/134a	
R-428A	R-125/143a/290/600a	
R-434A	R-125/143a/134a/600a	
R-437A	R-125/134a/600/601	
R-438A	R-32/125/134a/600/601a	
R-507A	R-125/143a (50/50)	
R-508B	R-23/116 (46/54)	
MO89	ISCEON® MO89	