APPENDIX E TO SUBPART A OF PART 82—ARTICLE 5 PARTIES

Afghanistan
Albania
Algeria
Angola
Antigua & Barbuda
Argentina
Armenia
Bahamas
Bahrain
Bangladesh
Barbados
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Brunei Darussalam
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
Chile
China
Colombia
Comoros
Congo
Congo Democratic Republic of
Cook Islands
Cost Rica
Côte d'Ivoire
Croatia
Cuba
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Ethiopia
Fiji
Gabon
Gambia
Georgia
Ghana
Grenada
Guatemala
Guinea
Guinea Bissau
Guyana
Haiti
Honduras
India
Indonesia
Iran, Islamic Republic of
Iraq
Jamaica
Jordan
Kenya
Kiribati
Korea, People's Democratic Republic of
Korea Republic of
Kuwait
Kyrgyzstan
Lao People's Democratic Republic
Lebanon
Lesotho
Liberia
Libyan Arab Jamahiriya
Madagascar
Malawi
Malaysia
Maldives
Mali
Marshall Islands
Mauritania
Mauritius
Mexico
Micronesia, Federal States of
Moldova
Mongolia
Montenegro
Morocco
Mozambique
Myanmar
Namibia
Nauru
Nepal
Nicaragua
Niger
Nigeria
Niue
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Qatar
Rwanda
Saint Kitts and Nevis
Saint Lucia
Saint Vincent & the Grenadines
Samoa
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Seychelles
Sierra Leone
Singapore
Solomon Islands
Somalia
South Africa
Sri Lanka
Sudan
Suriname
Swaziland
Syrian Arab Republic
Tanzania, United Republic of
Thailand
The Former Yugoslav Republic of Macedonia
Timor-Leste
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Tuvalu
Uganda
United Arab Emirates
Uruguay
Vanuatu
Venezuela
Viet Nam
Yemen
Zambia
Zimbabwe.

[74 FR 66448, Dec. 15, 2009]

APPENDIX F TO SUBPART A OF PART 82—LISTING OF OZONE-DEPLETING CHEMICALS

Controlled substance	ODP	AT L	CLP	BLP
A. Class I:				
1. Group I:				
$CFCl_3$-Trichlorofluoromethane (CFC-11)	1.0	60.0	1.0	0.00
CF_2 Cl_2-Dichlorodifluoromethane (CFC-12)	1.0	120.0	1.5	0.00
C_2 F_3 Cl_3-Trichlorotrifluoroethane (CFC-113)	0.8	90.0	1.11	0.00
C_2 F_4 Cl_2-Dichlorotetrafluoroethane (CFC-114)	1.0	200.00	1.8	0.00
C_2 F_5 Cl-Monochloropentafluoroethane (CFC-115)	0.6	400.0	2.0	0.00
All isomers of the above chemicals		[Reserved]		
2. Group II:				
CF_2 ClBr-Bromochlorodifluoromethane (Halon-1211)	3.0	12	0.06	0.13
		−18	−.08	−.03
CF_3 Br-Bromotrifluoromethane (Halon-1301)	10.0	72	0.00	1.00
		−107		
C_2 F_4 Br_2-Dibromotetrafluoroethane (Halon-2402)	6.0	23	0.00	0.30
		−28		−.37
All isomers of the above chemicals		[Reserved]		

Controlled substance	ODP	AT L	CLP	BLP
3. Group III:				
CF_3 Cl-Chlorotrifluoromethane (CFC-13)	1.0	120	0.88	0.00
	−250	−1.83		
C_2 FCl_5- (CFC-111)	1.0	60	1.04	0.00
	−90	−1.56		
C_2 F_2 Cl_4- (CFC-112)	1.0	60	0.90	0.00
	−90	−1.35		
C_3 FCl_7- (CFC-211)	1.0	100	1.76	0.00
	−500	−8.81		
C_3 F_2 Cl_6- (CFC-212)	1.0	100	1.60	0.00
	−500	−7.98		
C_3 F_3 Cl_5- (CFC-213)	1.0	100	1.41	0.00
	−500	−7.06		
C_3 F_4 Cl_4- (CFC-214)	1.0	100	1.20	0.00
	−500	−6.01		
C_3 F_5 Cl_3 -(CFC-215)	1.0	100	0.96	0.00
	−500	−4.82		
C_3 F_6 Cl_2- (CFC-216)	1.0	100	0.69	0.00
	−500	−3.45		
C_3 F_7 Cl- (CFC-217)	1.0	100	0.37	0.00
	−500	−1.87		
All isomers of the above chemicals		[Reserved]		
4. Group IV:				
CCl_4 -Carbon Tetrachloride	1.1	50.0	1.0	0.00
5. Group V:				
C_2 H_3 Cl_3-1,1,1 Trichloroethane (Methyl chloroform)	0.1	6.3	0.11	0.00
All isomers of the above chemical except 1,1,2-trichloroethane		[Reserved]		
6. Group VI:				
CH3Br-Bromomethane (Methyl Bromide)	0.7		[Reserved]	
7. Group VII:				
$CHFBr_2$-	1.00		[Reserved]	
CHF_2Br-(HBFC–22B1)	0.74		[Reserved]	
CH_2FBr	0.73		[Reserved]	
C_2HFBr_4	0.3–0.8		[Reserved]	
$C_2HF_2Br_3$	0.5–1.8		[Reserved]	
$C_2HF_3Br_2$	0.4–16		[Reserved]	
C_2HF_4Br	0.7–1.2		[Reserved]	
$C_2H_2FBr_3$	0.1–1.1		[Reserved]	
$C_2H_2F_2Br_2$	0.2–1.5		[Reserved]	
$C_2H_2F_3Br$	0.7–1.6		[Reserved]	
$C_2H_3FBr_2$	0.1–1.7		[Reserved]	
$C_2H_3F_2Br$	0.2–1.1		[Reserved]	
C_2H_4FBr	0.07–0.1		[Reserved]	
C_3HFBr_6	0.3–1.5		[Reserved]	
$C_3HF_2Br_5$	0.2–1.9		[Reserved]	
$C_3HF_3Br_4$	0.3–1.8		[Reserved]	
$C_3HF_4Br_3$	0.5–2.2		[Reserved]	
$C_3HF_5Br_2$	0.9–2.0		[Reserved]	
C_3HF_6Br	0.7–3.3		[Reserved]	
$C_3H_2FBr_5$	0.1–1.9		[Reserved]	
$C_3H_2F_2Br_4$	0.2–2.1		[Reserved]	
$C_3H_2F_3Br_3$	0.2–5.6		[Reserved]	
$C_3H_2F_4Br_2$	0.3–7.5		[Reserved]	
$C_3H_2F_5Br$	0.9–1.4		[Reserved]	
$C_3H_3FBR_4$	0.08–1.9		[Reserved]	
$C_3H_3F_2Br_3$	0.1–3.1		[Reserved]	
$C_3H_3F_3Br_2$	0.1–2.5		[Reserved]	
$C_3H_3F_4Br$	0.3–4.4		[Reserved]	
$C_3H_4FBr_3$	0.03–0.3		[Reserved]	
$C_3H_4F_2Br_2$	0.1–1.0		[Reserved]	
$C_3H_4F_3Br$	0.07–0.8		[Reserved]	
$C_3H_5FBr_2$	0.04–0.4		[Reserved]	
$C_3H_5F_2Br$	0.07–0.8		[Reserved]	
C_3H_6FB	0.02–0.7		[Reserved]	
8. Group VIII:				
CH_2BrCl (Chlorobromomethane)	0.12		[Reserved]	
B. Class II:				
$CHFCl_2$-Dichlorofluoromethane (HCFC-21)	[Reserved]	2.1	0.03	0.00
CHF_2 Cl-Chlorodifluoromethane (HCFC-22)	0.05	15.3	0.14	0.00
CH_2 FCl-Chlorofluoromethane (HCFC-31)	[Reserved]	1.44	0.02	0.00
C_2 $HFCl_4$- (HCFC-121)	[Reserved]	0.6	0.01	0.00
C_2 HF_2 Cl_3- (HCFC-122)	[Reserved]	1.4	0.02	0.00

Controlled substance	ODP	AT L	CLP	BLP
$C_2 HF_3 Cl_2$- (HCFC-123)	0.02	1.6	0.016	0.00
$C_2 HF_4 Cl$- (HCFC-124)	0.02	6.6	0.04	0.00
$C_2 H_2 FCl_3$- (HCFC-131)	[Reserved]	4.0	0.06	0.00
$C_2 H_2 F_2 Cl_2$- (HCFC-132b)	[Reserved]	4.2	0.05	0.00
$C_2 H_2 F_3 Cl$- (HCFC-133a)	[Reserved]	4.8	0.03	0.00
$C_2 H_3 FCl_2$- (HCFC-141b)	0.12	7.8	0.10	0.00
$C_2 H_3 F_2 Cl$- (HCFC-142b)	0.06	19.1	0.14	0.00
$C_3 HFCl_6$- (HCFC-221)	[Reserved]			0.00
$C_3 HF_2 Cl_5$- (HCFC-222)	[Reserved]			0.00
$C_3 HF_3 Cl_4$- (HCFC-223)	[Reserved]			0.00
$C_3 HF_4 Cl_3$- (HCFC-224)	[Reserved]			0.00
$C_3 HF_5 Cl_2$- (HCFC-225ca)	[Reserved]	1.5	0.01	0.00
		– 1.7		
(HCFC-225cb)	[Reserved]	5.1	0.04	0.00
$C_3 HF_6 Cl$- (HCFC-226)	[Reserved]			0.00
$C_3 H_2 FCl_5$- (HCFC-231)	[Reserved]			0.00
$C_3 H_2 F_{24}$- (HCFC-232)	[Reserved]			0.00
$C_3 H_2 F_3 Cl_3$- (HCFC-233)	[Reserved]			0.00
$C_3 H_2 F_4 Cl_2$- (HCFC-234)	[Reserved]			0.00
$C_3 H_2 F_5 Cl$- (HCFC-235)	[Reserved]			0.00
$C_3 H_3 FCl_4$- (HCFC-241)	[Reserved]			0.00
$C_3 H_3 F_2 Cl_3$- (HCFC-242)	[Reserved]			0.00
$C_3 H_3 F_3 Cl_2$- (HCFC-243)	[Reserved]			0.00
$C_3 H_3 F_4 Cl$- (HCFC-244)	[Reserved]			0.00
$C_3 H_4 FCl_3$- (HCFC-251)	[Reserved]			0.00
$C_3 H_4 F_2 Cl_2$- (HCFC-252)	[Reserved]			0.00
$C_3 H_4 F_3 Cl$- (HCFC-253)	[Reserved]			0.00
$C_3 H_5 FCl_2$- (HCFC-261)	[Reserved]			0.00
$C_2 H_5 F_2 Cl$- (HCFC-262)	[Reserved]			0.00
$C_3 H_6 FCl$- (HCFC-271)	[Reserved]			0.00
All isomers of the above chemicals	[Reserved]			

[60 FR 24986, May 10, 1995, as amended at 68 FR 42894, July 18, 2003]

APPENDIX G TO SUBPART A OF PART 82—UNEP RECOMMENDATIONS FOR CONDITIONS APPLIED TO EXEMPTION FOR ESSENTIAL LABORATORY AND ANALYTICAL USES

1. Essential laboratory and analytical uses are identified at this time to include equipment calibration; use as extraction solvents, diluents, or carriers for chemical analysis; biochemical research; inert solvents for chemical reactions, as a carrier or laboratory chemical and other critical analytical and laboratory purposes. Pursuant to Decision XI/15 of the Parties to the Montreal Protocol, effective January 1, 2002 the following uses of class I controlled substances are not considered essential under the global laboratory exemption:

a. Testing of oil and grease and total petroleum hydrocarbons in water;

b. Testing of tar in road-paving materials; and

c. Forensic finger printing.

Production for essential laboratory and analytical purposes is authorized provided that these laboratory and analytical chemicals shall contain only controlled substances manufactured to the following purities:

CTC (reagent grade)—99.5
1,1,1,-trichloroethane—99.5
CFC-11—99.5
CFC-13—99.5
CFC-12—99.5
CFC-113—99.5
CFC-114—99.5
Other w/ Boiling P>20 degrees C—99.5
Other w/ Boiling P<20 degrees C—99.0

d. Testing of organic matter in coal.

2. These pure, controlled substances can be subsequently mixed by manufacturers, agents or distributors with other chemicals controlled or not controlled by the Montreal Protocol as is customary for laboratory and analytical uses.

3. These high purity substances and mixtures containing controlled substances shall be supplied only in re-closable containers or high pressure cylinders smaller than three litres or in 10 millilitre or smaller glass ampoules, marked clearly as substances that deplete the ozone layer, restricted to laboratory use and analytical purposes and specifying that used or surplus substances should be collected and recycled, if practical. The material should be destroyed if recycling is not practical.

4. Parties shall annually report for each controlled substance produced: the purity; the quantity; the application, specific test standard, or procedure requiring its uses; and the status of efforts to eliminate its use in each application. Parties shall also submit copies of published instructions, standards, specifications, and regulations requiring the use of the controlled substance.