APPENDIX C

MAJOR CHEMICAL FORMULAE AND NOMENCLATURE FROM THIS ASSESSMENT

HALOGEN-CONTAINING SPECIES

Cl	atomic chlorine	Br	atomic bromine
Cl_2	molecular chlorine	Br_2	molecular bromine
ClO	chlorine monoxide	BrO	bromine monoxide
ClO_x	chlorine radicals	BrO_x	bromine radicals
OClO	chlorine dioxide	OBrO	bromine dioxide
ClOO	chloroperoxy radical		
Cl_2O_2, ClOOCl	dichlorine peroxide (ClO dimer)		
ClONO	chlorine nitrite, nitryl chloride		
$ClONO_2$, $ClNO_3$	chlorine nitrate	$BrONO_2$, $BrNO_3$	bromine nitrate
HCl	hydrogen chloride (hydrochloric acid)	HBr	hydrogen bromide
HOCl	hypochlorous acid	HOBr	hypobromous acid
Cl_y	inorganic chlorine	Br_y	inorganic bromine
CCl_y	organic chlorine	CBr_y	organic bromine
BrCl	bromine chloride	BrOOCl	bromochloroperoxide
F	atomic fluorine	I	atomic iodine
F_2	molecular fluorine	I_2	molecular iodine
		IO	iodine monoxide
		OIO	iodine dioxide
		$IONO_2$	iodine nitrate
HF	hydrogen fluoride (hydrofluoric acid)	HI	hydrogen iodide
		HOI	hypoiodous acid
SF_6	sulfur hexafluoride		
SF_5CF_3	trifluoromethylsulfurpentafluoride		
NF_3	nitrogen trifluoride		

HALOCARBONS

CHLOROFLUOROCARBONS (CFCS)

CFC-11	CCl_3F
CFC-12	CCl_2F_2
CFC-13	$CClF_3$
CFC-113	CCl_2FCClF_2
CFC-113a	CCl_3CF_3
CFC-114	$CClF_2CClF_2$
CFC-114a	CCl_2FCF_3
CFC-115	$CClF_2CF_3$

HYDROCHLOROFLUOROCARBONS (HCFCS)

HCFC-21	$CHCl_2F$
HCFC-22	$CHClF_2$
HCFC-31	CH_2ClF
HCFC-123	$CHCl_2CF_3$
HCFC-124	$CHClFCF_3$
HCFC-141b	CH_3CCl_2F
HCFC-142b	CH_3CClF_2
HCFC-225ca	$CHCl_2CF_2CF_3$
HCFC-225cb	$CHClFCF_2CClF_2$
HCFC-243cc	$CH_3CF_2CFCl_2$

CHEMICAL FORMULAE

HYDROFLUOROCARBONS (HFCS)

HFC-23	CHF_3	HFC-245cb	$CH_3CF_2CF_3$
HFC-32	CH_2F_2	HFC-245ca	$CH_2FCF_2CHF_2$
HFC-41	CH_3F	HFC-245ea	$CHF_2CHFCHF_2$
HFC-125	CHF_2CF_3	HFC-245eb	$CH_2FCHFCF_3$
HFC-134	CHF_2CHF_2	HFC-245fa	$CHF_2CH_2CF_3$
HFC-134a	CH_2FCF_3	HFC-263fb	$CH_3CH_2CF_3$
HFC-143	CH_2FCHF_2	HFC-272ca	$CH_3CF_2CH_3$
HFC-143a	CH_3CF_3	HFC-281ea	CH_3CHFCH_3
HFC-152	CH_2FCH_2F	HFC-365mfc	$CH_3CF_2CH_2CF_3$
HFC-152a	CH_3CHF_2	HFC-356mcf	$CH_2FCH_2CF_2CF_3$
HFC-161	CH_3CH_2F	HFC-356mff	$CF_3CH_2CH_2CF_3$
HFC-227ea	CF_3CHFCF_3	HFC-338pcc	$CHF_2CF_2CF_2CHF_2$
HFC-236cb	$CH_2FCF_2CF_3$	HFC-43-10mee	$CF_3CHFCHFCF_2CF_3$
HFC-236ea	CHF_2CHFCF_3	HFC-458mfcf	$CF_3CH_2CF_2CH_2CF_3$
HFC-236fa	$CF_3CH_2CF_3$	HFC-55-10mcff	$CF_3CF_2CH_2CH_2CF_2CF_3$

HALONS

Halon-1202	CBr_2F_2	Halon-1301	$CBrF_3$
Halon-1211	$CBrClF_2$	Halon-2402	$CBrF_2CBrF_2$

CHLOROCARBONS

CH_3Cl	methyl chloride, chloromethane
CH_2Cl_2	methylene chloride, dichloromethane
$CHCl_3$	chloroform, trichloromethane
CCl_4	carbon tetrachloride
C_2HCl_3	trichloroethene, trichloroethylene
C_2Cl_4	tetrachloroethene, perchloroethene
CH_3CH_2Cl	chloroethane
CH_2ClCH_2Cl	1, 2 dichloroethane
CH_3CCl_3	methyl chloroform
$C_2H_2Cl_4$	tetrachloroethane
C_4Cl_6	hexachlorobutadiene
$COCl_2$	phosgene, carbonyl chloride

IODOCARBONS

CH_3I	iodomethane, methyl iodide
CH_2I_2	diiodomethane
CH_3CH_2I	iodoethane, ethyl iodide
CH_3CHICH_3 (i-C_3H_7I)	2-iodopropane, isopropyl iodide
$CH_3CH_2CH_2I$ (n-C_3H_7I)	1-iodopropane, n-propyl iodide

BROMOCARBONS

CH_3Br	methyl bromide, bromomethane
CH_2Br_2	methylene bromide, dibromomethane
$CHBr_3$	bromoform, tribromomethane
CH_2BrCH_2Br	1,2 dibromoethane
$CH_3CH_2CH_2Br$ (n-C_3H_7Br)	1-bromopropane, n-propyl bromide, n-PB
$CH_3C(O)CH_2Br$	bromoacetone

FLUOROCARBONS

CF_4	tetrafluoromethane, carbon tetrafluoride
C_2F_6, CF_3CF_3	perfluoroethane
C_3F_8, $CF_3CF_2CF_3$	perfluoropropane
c-C_3F_6	perfluorocyclopropane
C_4F_{10}	perfluorobutane
c-C_4F_8	perfluorocyclobutane
C_5F_{12}	perfluoropentane
C_6F_{14}	perfluorohexane
COF_2	carbonyl fluoride
TFA	trifluoroacetic acid (CF_3COOH)
CF_3COF	trifluoroacetyl fluoride

OTHERS

$CHBr_2Cl$	dibromochloromethane
CH_2BrCl	bromochloromethane
$CHBrCl_2$	bromodichloromethane
CH_2BrI	bromoiodomethane
$CHBrF_2$	bromodifluoromethane
CH_2ClI	chloroiodomethane
CF_3I	trifluoromethyl iodide, trifluoroiodomethane
CF_3CF_2I	iodopentafluoroethane
COClF	chlorofluorocarbonyl
CF_3COCl	trifluoroacetyl chloride
SF_6	sulfur hexafluoride
SF_5CF_3	trifluoromethylsulfurpentafluoride

OTHER SPECIES

O	atomic oxygen
$O(^3P)$	atomic oxygen (ground state)
$O(^1D)$	atomic oxygen (first excited state)
O_2	molecular oxygen
O_3	ozone
O_x	odd oxygen (O, $O(^1D)$, O_3) or oxidant ($O_3 + NO_2$)

H	atomic hydrogen
H_2	molecular hydrogen
OH	hydroxyl radical
HO_2	hydroperoxyl radical
H_2O	water
H_2O_2	hydrogen peroxide
HO_x	odd hydrogen (H, OH, HO_2, H_2O_2)
HDO	deuterated water

N	atomic nitrogen
N_2	molecular nitrogen
N_2O	nitrous oxide
NO	nitric oxide
NO_2	nitrogen dioxide
NO_3	nitrogen trioxide, nitrate radical
N_2O_5	dinitrogen pentoxide
NO_x	nitrogen oxides ($NO + NO_2$)
NO_y	total reactive nitrogen (usually includes NO, NO_2, NO_3, N_2O_5, $ClONO_2$, HNO_4, HNO_3)

HNO_2, HONO	nitrous acid
HOONO	pernitrous acid
HNO_3	nitric acid
HNO_4, HO_2NO_2	peroxynitric acid, pernitric acid
CH_3OONO_2	methylperoxynitrate
PAN	peroxyacetylnitrate ($CH_3C(O)OONO_2$)
$RONO_2$	alkyl nitrates
NAD	nitric acid dihydrate ($HNO_3 \cdot 2H_2O$)
NAT	nitric acid trihydrate ($HNO_3 \cdot 3H_2O$)
NAP	nitric acid pentahydrate ($HNO_3 \cdot 5H_2O$)

S	atomic sulfur
SO_2	sulfur dioxide
SO_4	sulfate

H_2S	hydrogen sulfide
CS_2	carbon disulfide
COS, OCS	carbonyl sulfide

H_2SO_4	sulfuric acid
CH_3SCH_3	DMS, dimethyl sulfide
$CH_3S(O)CH_3$	DMSO, dimethyl sulfoxide
CH_3SO_3H	MSA, methanesulfonic acid

C	carbon atom
CO	carbon monoxide
CO_2	carbon dioxide

NMHC	nonmethane hydrocarbon
CH_4	methane
C_2H_6	ethane
C_3H_8	propane
C_2H_4	ethylene, ethene
C_2H_2	acetylene, ethyne

CH_2O, HCHO	formaldehyde
CH_3COCH_3	acetone
CH_3OOH	methyl hydroperoxide
CH_3COO	methyl peroxy radical
$CH_3C(O)OO$	acetyl peroxy radical
RO	alkoxy radicals
RO_2	organic peroxy radicals