

## Appendix 2

## List of abbreviations and acronyms, and descriptions of selected symbols and terms mentioned in this report

The following list is not an exhaustive glossary, but rather is intended as a quick reference to the numerous, sometimes non-standard, acronyms and abbreviations used in this report. It also includes some notes on selected symbols and terms applied in the different chapters of the report. Where terms or their usage are defined in more detail in the chapters of the report, the list includes a reference (in italics) to the chapter sections where the definition can be found.

The list does not generally include common abbreviations and prefixes, etc., or standard SI units, chemical symbols or mathematical symbols, etc.

The International Arctic Science Committee (IASC) also maintains a list of acronyms commonly used within the Arctic scientific community. This can be found on the Internet (<http://www.npolar.no:80/iasc/acronyms/intro.htm>).

<i>Abbreviation, acronym or term</i>	<i>Definition</i>
$\delta^{15}\text{N}$	$^{15}\text{N}/^{14}\text{N}$ stable isotope ratio (standardized against air).
$\Sigma\text{CBz}$	Sum of tetra-, penta- and hexachlorobenzene (concentrations).
$\Sigma\text{CHL}$	Sum of <i>cis</i> - and <i>trans</i> -chlordane and <i>cis</i> - and <i>trans</i> -nonachlor (concentrations).
$\Sigma\text{DDT}$	Sum of DDT, DDD, and DDE (concentrations).
$\Sigma\text{HCH}$	Sum of (concentrations of) $\alpha$ -, $\beta$ -, and $\gamma$ -HCH isomers
$\Sigma\text{PCB}$	Sum of a number of individual polychlorinated (PCB) congeners. A method of expressing the PCB content of a sample by measuring and summing the quantities of specific PCB congeners. The number and identification of the congeners determined varies from laboratory to laboratory and for different types of samples. It is generally given in explanatory notes. (See also Total PCB).
/cap	Per capita.
AA	Arachidonic acid
AAR	AMAP Assessment Report.
Absorbed dose	Term used in radiological protection for the energy absorbed per unit mass, expressed in gray (Gy) (joules per kilogram). (Refer to section 8.2.2.2.)
ACEN	Acenaphthene (PAH).
ACOPS	Advisory Committee on Protection of the Sea.
ACSYS	(WMO) Arctic Climate System Study.
Action level	See also intervention level. (Refer to section 8.2.3.4.)
Active layer	Upper layer of permafrost that thaws during summer
ADI	Acceptable Daily Intake. (See also TDI.)
Advection	Chapter 3 usage: horizontal movement of ocean water masses.
AE	Aldrin epoxidase.
AEM	Applications Explorer Mission.
AEPS	Arctic Environmental Protection Strategy.
Aerosol	Dispersion of solid or liquid particles of microscopic size in gaseous media. The particles are so small that their fall speeds are small compared with the vertical component of the air motion. Haze and cloud are the commonest atmospheric aerosols, fall speeds being fractions of 1 cm per second.
AES	(Canadian) Atmospheric Environment Service.
AGASP	Arctic Gas and Aerosol Sampling Program.
Aggregated transfer coefficients	(Refer to section 8.2.4.)
Ah receptor	Aryl hydrocarbon receptor, also known as the dioxin receptor.
AHH	Aryl hydrocarbon hydroxylase.
AIPON	Association of Indigenous Peoples of the North, Siberia, and the Far East of the Russian Federation.
ALAD, ALA-D	Delta-aminolevulinic dehydratase.
ALAT	Alanine aminotransferase.
Alkalinity (lake)	The quantity and types of compounds present in a lake that collectively shift the pH to the alkaline side of neutrality, thereby providing an index to the nature of the rocks within the drainage basin and the degree to which they are weathered.
AM	Arithmetic mean.
AMAP	Arctic Monitoring and Assessment Programme (Arctic Council/AEPS group).
AMAP WG	AMAP Working Group.
ANC	Acid neutralizing capacity.
ANCSA	Alaska Native Claims Settlement Act.

ANWAP	(US) Arctic Nuclear Waste Assessment Program.
ANWR	(US) Arctic National Wildlife Refuge.
AO	Autonomous Okrug (autonomous administrative units in northern Russia).
APCA	Absolute principal component analysis.
APND	Aminopyrine N-demethylase.
Arctic Circle	Latitude of 66°32' N.
Arctic front	The semipermanent, semicontinuous front between deeper, colder Arctic air and shallower, less cold polar air of northern latitudes.
Arctic haze	A condition in which visibility is reduced in horizontal and slant directions, but remains unimpeded vertically; encountered by aircraft over Arctic regions. (Refer to section 9.5.)
Aroclor 1254	Technical PCB mixture.
ASAT	Aspartate aminotransferase.
ASG	(AMAP) Assessment Steering Group.
Assessment	A (regional) assessment is both a <i>process</i> (i.e., the procedure by which the information is collected and evaluated) undertaken periodically to assess the state of knowledge, and a <i>product</i> (i.e., a document presenting and synthesizing the findings of the assessment and an action plan for future work).
Avertable dose	Term used in radiological protection to describe the dose potentially averted by implementation of intervention measures. (Refer to section 8.2.3.2.)
B(a)P	Benzo[a]pyrene (PAH).
B(b)F	Benzo[b]fluoranthene (PAH).
B(e)P	Benzo[e]pyrene (PAH).
B(bk)F	Benzo[b+k]fluoranthene (PAH).
B(ghi)P	Benzo[ghi]perylene (PAH).
BAF	1) Bioaccumulation factor. Usage/definition chapter 7 : unitless ratio representing the steady state between the rate of uptake and the rate of loss of metals by an organism, largely dependent on the bio availability of different metals to an organism, and the tissue concerned. (Refer to section 7.4.2.1.) (See also bioaccumulation.) 2) Biological amplification factor. (Refer to section 11.4.4.)
Base cations	See BC.
Base saturation	The extent to which the adsorption complex of a soil is saturated with exchangeable cations other than hydrogen. Base saturation is expressed as a percentage of the total cation-exchange capacity.
BC	Base cations: calcium (Ca <sup>2+</sup> ), magnesium (Mg <sup>2+</sup> ), potassium (K <sup>+</sup> ) and sodium (Na <sup>+</sup> ).
BEAR	Barents Euro-Arctic Region.
Beaufort Gyre	Major current system in the Arctic Ocean: clockwise surface circulation in the Beaufort Sea/Canada Basin area of the Arctic Ocean. (See also Transpolar Drift.)
Billion	10 <sup>9</sup>
Bioaccumulation	General concept: the accumulation of substances (including contaminants) in the bodies of animals over time as the animals continue to eat food, drink water or breath air containing the substances. Contaminants that bioaccumulate tend to remain in a form that cannot easily be eliminated from the animal. Usage/definition chapter 6: the net accumulation of POPs from all exposure routes, usually expressed as the concentration of a POP in an organism on a lipid weight basis divided by the concentration found in water (truly dissolved) or air (gas phase). (Refer to section 6.4.) Usage/definition chapter 7: the net accumulation of metals within an organism from both biotic (other organisms) and abiotic (soil, air, and water) sources, expressed as the relationship between the concentration of a metal in the tissue of an organism and the concentration of the metal in the air (terrestrial) or water (aquatic). (Refer to section 7.4.2.1.) (See also BAF.)
Biomagnification	Usage/definition chapter 10: the process by which chemicals, especially toxic contaminants, are absorbed and concentrate in living organisms. General concept: the process whereby concentrations of certain substances increase with each step in the food web as, e.g., predators consume the contaminants stored in their food (prey), which in turn include the contaminants consumed by these prey from their food. Usage/definition chapter 6: the increased accumulation of POPs with each trophic level in a food web, expressed as the concentrations in the organisms divided by the concentrations in its food, both on a lipid weight or organic carbon (sediments, soils) basis. (Refer to section 6.4.) Usage/definition chapter 7: the progressive bioaccumulation of heavy metals by successive trophic levels. (Refer to section 7.4.2.1.) (See also BMF.) Usage/definition chapter 10: the process by which chemicals, especially toxic contaminants, are passed along the succeeding levels of an ecological food chain so that the concentrations become greater at each succeeding level in the chain.

BIOS	Baffin Island Oil Spill project. A program of multidisciplinary field studies conducted in the early 1980s in the Canadian eastern Arctic to evaluate the effects of an experimental oil spill.
BMF	Biomagnification factor. Usage/definition chapter 7: the ratio of concentrations of a heavy metal present in the tissue of organisms at two trophic levels; typically the concentration ratio in a tissue of a predator organism to that in a prey organism. The BMF can refer to concentrations in organisms one or more trophic levels apart, and should be derived from metal concentrations in the same tissue/organ compartments for both the predator and prey organism. (Refer to section 7.4.2.1.)
BNFL	British Nuclear Fuels plc.
BROD	Benzyloxyresorufin.
bw	Body weight.
BWF	Biological weighting function.
CAFF	Conservation of Arctic Flora and Fauna (Arctic Council/AEPS group).
Carcinogenic	Cancer-causing.
CB	Chlorobiphenyl. Typically used in association with an IUPAC number to identify a particular PCB congener (e.g. CB 153).
CBz	Chlorinated benzene.
CCMS	(NATO) sub-Committee on Challenges to Modern Society.
CEC	Cation-exchange capacity.
CFCs	Chlorofluorocarbons.
CGCM	Coupled General Circulation Models.
CGEIC	Canadian Global Emissions Interpretation Centre.
CHL	Chlordane.
CHRY	Chrysene (PAH).
CL	Critical load.
CMB	Chemical mass balance (method).
cNOS	Calcium-dependent constitutive form of nitric oxide synthase. (See also iNOS.)
CNS	Central nervous system.
Coastal polynya	See flaw lead.
Collective exposures	(Refer to section 8.2.3.1.)
Compliance with exposure limits	(Refer to section 8.2.3.1.)
Congener	An individual PCB, PCDD or PCDF.
Contamination	See pollution and contamination.
Convection	Chapter 3 usage: vertical movement of ocean water masses.
Coplanar PCBs	PCB molecules that can take on a planar configuration and that are dioxin-like. These include non- <i>ortho</i> and mono- <i>ortho</i> PCBs.
COSEWIC	Committee on the Status of Endangered Wildlife in Canada.
COZOIL	Coastal Zone Oil Spill Model.
CPI	Carbon Preference Index. (Refer to section 10.5.)
Critical group	(Refer to section 8.2.3.1.)
Critical loads, critical levels	A quantitative estimate of the loading of one or more pollutants below which significant harmful effects on specified sensitive elements of the environment are not likely to occur according to present knowledge (source: J. Nilsson and P. Grennfelt (eds.), 1988. Critical loads for sulphur and nitrogen. Nordic Council of Ministers, Copenhagen, Miljørapport 1988:15). Critical levels are a similar concept, but estimates are for levels rather than loads.
Critical pathway	Term used in radiological protection to describe the dominant route(s) of radiation exposure. (Refer to section 8.2.3.5.2.)
CTD	Conductivity, temperature, depth (instrumentation and associated measurements).
d	Day.
DAE	(Danish) Department for the Arctic Environment.
DBT	Dibutyltin.
DDD	1,1-dichloro-2,2-bis (4-chlorophenyl) ethane.
DDE	1,1-dichloro-2,2-bis (4-chlorophenyl) ethylene.
DDT	Dichlorodiphenyltrichloroethane (an organochlorine pesticide). 1,1,1-trichloro-2,2-bis (4-chlorophenyl) ethane.
Detriment	(Refer to section 8.2.3.5.1.)
DEW Line	Distant Early Warning Line. A chain of defense radar stations, many now abandoned, along the 66th parallel in Canada, also extending into Alaska and Greenland.
DHM	Dissolved humic matter.
DIC	Dissolved inorganic carbon.
Diversity	Chapter 9 usage/definition: 1) The degree of uncertainty attached to the specific identity of any individual selected at random; 2) A community is said to have a high degree of diversity if it contains many species of fairly equal abundance. Diversity is lower when species' abundance is uneven, and very low when species are few.

DL, d.l.	Detection limit.
DMI	Danish Meteorological Institute.
DMS	Dimethylsulfide.
DNA	Deoxyribonucleic acid.
DNMI	Norwegian Meteorological Institute.
DO	Dissolved oxygen.
DOC	Dissolved organic carbon.
DOM	Dissolved organic matter.
Dry deposition	Delivery of airborne contaminants to the surface by particle fallout, diffusion, and air movements (including irregular air movements in the turbulent boundary layer close to the ground and diffusion through the laminar surface layer).
DTH	Delayed-type hypersensitivity.
DU	Dobson units.
dw	Dry weight – basis of determination of concentration.
EAO	Eurasian Arctic Ocean.
EASOE	European Arctic Stratospheric Ozone Experiment (EU project).
EC	European Commission (Commission of the European Communities).
EC <sub>50</sub>	Effective concentration causing a response in 50% of the treated organisms.
ECMWF	European Centre for Medium Range Weather Forecasts.
ECOD	Ethoxycoumarin-O-deethylase.
EEA	European Environment Agency.
EF	Enrichment factor.
Effective biological half-life	– of a radionuclide in an organism; a function of the biological half-life of the element in the organism and the physical half-life of the radionuclide. (Refer to section 8.2.3.5.2.)
Effective dose	Term used in radiological protection to describe the sum of the weighted equivalent doses in all the tissues and organs of the body (see also equivalent dose). (Refer to section 8.2.2.2.)
Effective ecological half-life	– of a radionuclide; a function of the half-life of the element in a component of an ecosystem and the physical half-life of the radionuclide. (Refer to section 8.2.3.5.2.)
EGP	Light-water-cooled graphite-moderated atomic energy reactor.
Eluvial horizon	A soil horizon from which material has been removed by the process of eluviation.
Eluviation	The downward movement of soluble or suspended material in a soil, from the A-horizon to the B-horizon, by groundwater percolation.
EMEP	European Monitoring and Evaluation Programme (UN ECE, LRTAP).
ENDS	Enhanced Nuclear Detonation Safety, nuclear weapon safety feature.
EPA	1) Environmental Protection Agency; 2) Eicosapentaenoic acid.
Epontic	Under ice.
Epontic algae	Under-ice algae (ice-edge algae).
EPPR	Emergency Prevention, Preparedness and Response (Arctic Council/AEPS group).
Equivalent dose	Term used in radiological protection to describe the radiation dose in a tissue or organ when the absorbed dose is averaged over a tissue or organ and weighted for radiation type (see also absorbed dose). (Refer to section 8.2.2.2.)
ER	Enantiomer ratio.
ERBS	Earth Radiation Budget Satellite (ERBS).
ERL	Effects Range Low.
ERM	Effects Range Median (or Effects Range Medium).
EROD	Ethoxyresorufin-O-deethylase.
ERS-2	European Remote Sensing (satellite) - 2
Estrogenic	Estrogen-like.
EU	European Union.
F	(Water/air) fugacity ratio.
Fast ice	Ice cover that grows seaward from the coast and remains ‘connected’ to the coast.
FCT	Flux-corrected transport.
Fetotoxic	Toxic to the fetus.
FFPI	Fossil Fuel Pollution Index. (Refer to section 10.5.)
Flaw lead	Coastal polynya. Polynya occurring at the fast ice border where offshore winds separate drift ice from pack ice.
Flux vulnerability	(Refer to section 8.7.5.2.)
FMI	Finnish Meteorological Institute.
Focusing zone	Zone of convergence of (contaminant) transport pathways where contaminant levels are typically elevated.
Food web	A series of interconnected food chains.
Fram Strait	Strait between Greenland and Svalbard; major exit route for water and ice exiting the Arctic Ocean.
Freshet	The sudden overflowing of a river caused by heavy rain or melting snow, the latter more likely in an Arctic context.

FRP	Fire-Resistant Pits, nuclear weapon safety feature.
FSU, fSU	Former Soviet Union.
FT3	Free triiodothyronine.
FT4	Free thyroxine.
FUDS	Formerly used defense sites.
FWI-DFO	(Canadian) Freshwater Institute, Department of Fisheries and Oceans, Winnipeg.
GAW	Global Atmospheric Watch.
GC-ECD	Gas chromatograph with electron capture detector.
GC-MS	Gas chromatograph with mass spectrometer.
GC-MSD	Gas chromatograph with mass selective detector.
GC-NIMS	Gas chromatograph with negative ion mass spectrometer.
GCM	General Circulation Model (sometimes Global Circulation Model).
GEIA	Global Emission Inventory Activity (activity of the IGAC programme of the IGBP).
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution.
GIS	Geographical Information System.
GIT	Gastro-intestinal tract.
GM	Geometric mean.
GOME	Global Ozone Monitoring Experiment.
GPA	(UNEP) Global Programme of Action.
Grind	Traditional Faeroese whale hunt.
GSH	Gluthation.
H (or HLC)	Henry's Law constant.
h, hr	Hour.
HALOE	Halogen Occultation Experiment.
Hazard	Usage/definition chapter 8: a set of circumstances that may result in harmful consequences – harm can be variously expressed, but is generally taken to include adverse effects on health or the quality of life. (Refer to section 8.2.2.1.)
HCB, HCBz	Hexachlorobenzene.
HCFCs	Replacement substances for CFCs.
HCH	Hexachlorocyclohexane (organochlorine insecticides; including the $\gamma$ -HCH isomer, lindane).
HDL	High-density lipoprotein.
HELCOM	Helsinki Commission.
High Arctic	(Refer to section 4.4.1.1.)
HpCDD	Heptachlorodibenzo- <i>p</i> -dioxin.
HpCDF	Heptachlorodibenzofuran.
HRGC	High resolution gas chromatography.
HRMS	High resolution mass spectrometer.
HxCB	Hexachlorobiphenyl.
HxCDD	Hexachlorodibenzo- <i>p</i> -dioxin.
HxCDF	Hexachlorodibenzofuran.
IAEA	(UN) International Atomic Energy Agency.
IARC	(WHO) International Agency for Research on Cancer.
IASAP	(IAEA) International Arctic Sea Assessment Project.
IASC	International Arctic Science Committee.
ICC	Inuit Circumpolar Conference.
ICES	International Council for the Exploration of the Sea.
ICRP	International Commission on Radiological Protection.
IEMEA	Institute of Evolution Morphology and Ecology of Animals.
IFA	Ice formation area.
IGACP	International Global Atmospheric Chemistry Program (of the IGBP).
IGBP	International Geosphere-Biosphere Project.
IHD	Ischemic heart disease.
IHE	Insensitive High Explosives, nuclear weapon safety feature.
IJC	International Joint Commission.
Illuvial horizon	A soil horizon to which material has been added by the process of illuviation.
Illuviation	Accumulation of soluble or suspended material transported from an upper soil horizon by the process of eluviation.
IMRN	Institute of Marine Research, Norway.
<i>In vitro</i>	Experiments carried out 'in glass', i.e. outside of living organisms.
<i>In vivo</i>	Experiments carried out in living organisms.
Individual exposures	(Refer to section 8.2.3.1.)
iNOS	Calcium-independent constitutive form of nitric oxide synthase. (See also cNOS.)
INSROP	International Northern Sea Route Programme.
Integrated transfer factors	(Refer to section 8.2.4.)
Intervention level	(Refer to section 8.2.3.4.) (See also action level.)
Interventions	(Refer to section 8.2.3.2.)

IOS	(Canadian) Institute of Ocean Sciences.
IPCC	Intergovernmental Panel on Climate Change.
IPCS	(WHO) International Programme on Chemical Safety.
IPO	Indigenous Peoples Organization.
IPS	Indigenous Peoples Secretariat.
Isobath	Contour joining points of equal depth.
Isohaline	Contour joining points of equal salinity.
Isomer	Member of a homologue group. Compounds having the same 'skeleton' and same number of chlorine atoms, e.g., 1,2,7,8-TeCDF and 2, 3, 7, 8-TeCDF are isomers.
Isotherm	Contour joining points of equal temperature.
IUCH	International Union for Circumpolar Health.
IUPAC	International Union of Pure and Applied Chemistry.
IWC	International Whaling Commission.
Justification	(Refer to section 8.2.3.1.)
K	Gas-exchange coefficient.
K <sub>oa</sub>	Partitioning coefficient between octanol and air.
K <sub>oc</sub>	Partitioning coefficient between octanol and organic carbon.
K <sub>ow</sub>	Partitioning coefficient between octanol and water.
LAI	Leaf-area index. A measure of the area of photosynthetic surface expanded over a given area of ground.
LAM	Limited-area model.
Lappcodisillen	Saami Codicil; supplement to a treaty of 1751 whereby civil rights of the Saami were acknowledged.
LC <sub>50</sub> (LC50)	Median lethal concentration. The concentration of a substance in water that kills 50% of the treated animals; i.e., the concentration estimated to be lethal to 50% of the individuals of a test organism, as established through experimental exposure of groups of the test organism to known concentrations of the substance.
LD <sub>50</sub>	Median lethal dose. The dose of a substance that kills 50% of the treated animals; i.e., the dose level that is estimated to be lethal to 50% of the individuals of a test organism as established through experimental exposure of groups of the test organism to known doses. A measure of acute (oral) lethality.
Light scattering	A change in the spatial distribution of a beam of light when it interacts with a surface; a process that causes no change in wavelength.
LIMS	Limb Infrared Monitor of the Stratosphere.
Lipophilic	Affinity for lipid; lipophilic substances exhibit a preference to accumulate in fat and fatty tissues.
Littoral zone	1) the intertidal zone of a sea. 2) the part of a lake extending from the shore down to the limit for rooted vegetation.
LOAEC	Lowest-(observed)-adverse-effect-concentration.
LOAEL	Lowest-(observed)-adverse-effect-level.
LOEC	Lowest-(observed)-effect-concentration.
LOEL	Lowest-(observed)-effect-level.
Low Arctic	(Refer to section 4.4.1.2.)
LRTAP	(UN-ECE Convention on) Long-range Transboundary Air Pollution.
LTHMP	(USEPA) Long-term Hydrological Monitoring Program.
lw	Lipid weight – basis of determination of concentration.
MAC	Maximum allowable concentration. (See also MPC.)
MAGIC	Model for Acidification of Groundwater in Catchments.
MARPOL	Convention for the Prevention of Pollution from Ships, 1973.
Mattak	Inuit food consisting of skin and blubber of whales.
MBIS	Mackenzie Basin Impact Study.
MBT	Monobutyltin.
Me(0)	Elemental form of a given metal.
MeHg	Methylmercury.
MeSO <sub>2</sub>	Methylsulfone.
MFO	Mixed function oxidase.
MI	Metabolic index.
Million	10 <sup>6</sup>
MLS	Microwave Limb Sounder.
MMC	Mean meridional circulation.
Mono-ortho PCBs	PCB molecules with one chlorine in the <i>ortho</i> position; i.e. with 2,3,3',4,4' chlorine substitution (e.g. CBs 118 and 105). (See also coplanar PCBs.)
MORS	(HELCOM) Monitoring of Radioactivity in the Sea group.
MPC	Maximum permissible concentration. A regulatory limit applied in Russia to establish the concentration of a contaminant that is allowed in the environment.

MPL	Maximum permissible level.
MRII	Marine Research Institute, Iceland.
MS	Mass spectrometer.
MSB	Medical Services Branch (of Health Canada).
MSC	Murmansk Shipping Company.
MSC-E	(EMEP) Meteorological Synthesizing Centre-East, Moscow.
MSC-W	(EMEP) Meteorological Synthesizing Centre-West, Oslo.
MW(e)	Megawatt (electrical output).
MW(t)	Megawatt (thermal output).
n	Number (of individuals in a sample, observations contributing to a mean, etc.).
NA, n.a.	1) Not analyzed; 2) Not applicable.
NAAO	North American Arctic Ocean.
NAPH	Naphthalene (PAH).
NASA	(US) National Aeronautic and Space Agency.
NATO	North Atlantic Treaty Organization.
NC	Negligible concentration.
NCM	Nordic Council of Ministers.
NCP	1) (Canadian) Northern Contaminants Program; 2) Nordic Council of Parliamentarians.
NCV	Nerve conduction velocity.
ND, nd, n.d.	1) not detected; 2) no date.
NEA	(OECD) Nuclear Energy Agency.
NEFCO	Nordic Environment Finance Corporation.
Nephelometry	Method of determining the amount of material suspended as small particles in liquid by measuring the light reflected and scattered by the suspensoids or by measuring the decrease in the intensity of a transmitted light beam.
NERI	(Danish) National Environmental Research Institute.
NFA	(Swedish) National Food Administration.
NILU	Norwegian Institute of Air Research.
NIP	(AMAP) National Implementation Plan.
NIST	(US) National Institute of Science and Technology.
NIVA	Norwegian Institute of Water Research.
NK cell	Natural killer cell.
NKS	Nordic nuclear safety research program.
nm	Nautical mile.
NMC	(US) National Meteorological Center.
NOAA	(US) National Oceanic and Atmospheric Administration.
NOAEC	No-(observed)-adverse-effects-concentration.
NOAEL	No-(observed)-adverse-effects-level.
NOEC	No-(observed)-effects-concentration.
NOEL	No-(observed)-effects-level.
nPCBs, non- <i>ortho</i> PCBs	PCB molecules with no chlorines in the <i>ortho</i> position; i.e., non- <i>ortho</i> substituted PCBs; PCB congeners with 3,3',4,4' chlorine substitution (e.g. CBs 77, 126 and 169). (See also coplanar PCBs.)
NPI	Norwegian Polar Institute.
NPP	Nuclear power plant.
NRPA	Norwegian Radiation Protection Authority.
NSF	(US) National Science Foundation.
NSR	Northern Sea Route. The system of sea lanes north of Eurasia, between the straits joining the Barents and Kara Seas in the west and the Bering Strait in the east.
NVI	(Norwegian) National Veterinary Institute.
NWS	North Warning System, radar station network.
NWT	Northwest Territories, Canada.
OC	Organochlorine.
OCDD	Octachlorodibenzo- <i>p</i> -dioxin.
OCDF	Octachlorodibenzofuran.
OECD	Organization for Economic Cooperation and Development.
OH	Hydroxyl radical.
ONR	(US) Office of Naval Research.
Optimization	(Refer to section 8.2.3.1.)
<i>ortho</i> PCBs	PCB molecules with chlorine substituents in the 2 and 6 positions.
OSPAR	Oslo and Paris Convention for the Protection of the Marine Environment of the North East Atlantic, 1992.
OSPARCOM	Oslo and Paris Commissions.
p	Probability.
PAHs	Polyaromatic hydrocarbons (polycyclic aromatic hydrocarbons; polynuclear aromatic hydrocarbons). In a strict sense, a group of chemicals comprised of all aromatic hydrocarbon molecules containing three or more benzene rings, but often also used to include

	hydrocarbon molecules with two benzene rings.
PAL	Permissive Action Links, nuclear weapon safety feature.
Paludification	Process by which a peat bog impedes drainage and expands its size.
PAME	Protection of the Arctic Marine Environment (Arctic Council/AEPS group).
PAN	Peroxyacetyl nitrate.
PAR	Photosynthetically active radiation.
PARCOM	Paris Commission.
PBDEs	Polybrominated diphenyl ethers.
PCA	Pentachloroanisole.
PCB-TEQ	TCDD equivalents calculated using TEF values for non- <i>ortho</i> and mono- <i>ortho</i> PCBs.
PCBs	Polychlorinated biphenyls. (See also CB).
PCCs	Polychlorinated camphenes, toxaphene.
PCDDs	Polychlorinated dibenzo- <i>p</i> -dioxins.
PCDE	Polychlorinated diphenyl ethers.
PCDFs	Polychlorinated dibenzofurans.
PCNs	Polychlorinated naphthalenes.
PCP	Pentachlorophenol.
PeBDE	Pentabrominated diphenyl ethers.
PeCB	Pentachlorobiphenyl.
PeCDD	Pentachlorodibenzo- <i>p</i> -dioxin.
PeCDF	Pentachlorodibenzofuran.
PEL	Probable effect level.
PER, PERY	Perylene (PAH).
Periphyton	Organisms attached to underwater rooted plants.
Permafrost	Perennially frozen ground; material that stays at or below 0°C for at least two consecutive summers.
PHEN	Phenanthrene (PAH).
Physical half-life	Measure describing rate of radioactive decay.
Planar PCBs	Collective name for non- <i>ortho</i> PCBs and mono- <i>ortho</i> PCBs.
Plankton	Animals and plants, many of them microscopic, that float or swim very feebly in fresh- or salt water bodies. They are moved passively by winds, waves or currents.
PLE	Polymorphic light eruptions.
POAM	Polar Ozone and Aerosol Measurement.
POC	Particulate organic carbon.
Podzol	A group of zonal soils having an organic mat and a very thin organic-mineral layer overlaying a gray, leached A2-horizon and a dark brown, illuvial B-horizon enriched in iron oxide, alumina, and organic matter. It develops under coniferous or mixed forests or under heath, in a cool to temperate moist climate. (Source: US Department of Agriculture (1938). Soils and men. Yearbook of agriculture, 1938. Washington: Government Printing Office. 1232p.)
Podzol horizons	Eluvial horizon and illuvial horizon.
Podzolization	Process by which a soil becomes more acidic owing to depletion of bases, develops surface layers that are leached of clay and develops illuvial B-horizons; the development of podzol.
Poikilotherm	Cold-blooded animal.
Pollution and contamination	Contamination implies the presence of a substance where it would normally not be found. Marine pollution is defined by GESAMP as: 'a harmful effect on marine life, human health, resources, amenities or other beneficial use of the sea caused, directly or indirectly, by substances and wastes (including energy) derived from human activity'. The GESAMP definition of (marine) pollution introduces the concepts of 'harmful effects' and 'human activity' in distinguishing the terms contamination and pollution. In AMAP's assessment, the GESAMP approach to defining 'pollution' as opposed to 'contamination' has been adopted for the most part. However, the use of the two terms in this report is not always entirely consistent in reflecting this. This is particularly so in, e.g., cases where the word pollution is in common usage; such as 'air pollution' or the use of the term 'persistent organic pollutants' rather than 'persistent organic contaminants'.
Polynya	Open water regions, ranging in area up to thousands of square kilometers, that persist within closed sea ice cover. (See also flaw lead.)
POM	Particulate organic matter.
POP	Persistent organic pollutant.
ppb	Parts per billion (10 <sup>-9</sup> ).
ppbv	Parts per billion (10 <sup>-9</sup> ) by volume.
ppm	Parts per million (10 <sup>-6</sup> ).
Practises	(Refer to section 8.2.3.)
PROD	Pentoxyresorufin-O-dealkylase.
PSA	Probabilistic safety assessment.

PSCF	Potential source contribution function.
PSCs	Polar stratospheric clouds.
psu	Practical salinity unit.
PTDI	Provisional Tolerable Daily Intake.
PTWI	Provisional Tolerable Weekly Intake. (See also PTDI.)
PUNE	Peaceful underground nuclear explosion.
PYR	Pyrene (PAH).
QA	Quality assurance.
QBO	Quasi-biennial oscillations.
QC	Quality control.
$r^2$	Coefficient of correlation.
Radioactivity	The property of spontaneous disintegration, or decay, of atomic nuclei accompanied by the emission of ionizing radiation.
	Radioactivity terms and definitions: refer to chapter 8, section 8.2.
Radioisotope	Radioactive isotope of an element having other isotopes of similar chemical properties but differing nuclear properties.
Radionuclides	Radioactive isotopes of all elements.
RAF	Radiation amplification factor.
RCMA	Regional Centre 'Monitoring of the Arctic', St. Petersburg.
Recalcitrance	Resistance to biodegradation.
rel. SD	Relative standard deviation.
RH	Relative humidity.
Risk	Usage/definition chapter 8: the probability (likelihood) that something 'unpleasant' will happen, considered within the context of the severity of the associated effect; the term 'safe' generally corresponds to having an 'acceptable level of risk'. (Refer to section 8.2.2.1.)
RITS	Radiatively important trace substances.
ROV	Remotely operated vehicle.
RTG	Radionuclide thermoelectric generator.
SAC	(US) Strategic Air Command.
SAGE	Stratospheric Aerosol and Gas Experiments.
SBUV	Solar Backscattering Ultraviolet.
SCC	Squamous cell cancer.
SCOPE	Scientific Committee on Problems of the Environment.
SD	Standard deviation.
SE	Standing eddies.
SESAME	Second European Stratospheric Arctic and Mid-latitude Experiment (EU project).
Shannon-Weaver index	An index of diversity based loosely upon information theory. Its minimum value occurs if all individuals belong to the same species and its maximum value if each individual belongs to a different species.
SMART	Simulation Model for Acidification's Regional Trends.
SME	Solar Mesosphere Explorer.
SMHI	Swedish Meteorological and Hydrological Institute.
SNF	Spent nuclear fuel.
SOAER	(AMAP) State of the Arctic Environment Report.
SOC	Semivolatile organic compounds.
SOD	Superoxide dismutase.
SPARC	Stratospheric Processes and their Role in Climate (WCRP project).
Specific vulnerability	(Refer to section 8.7.5.2.)
SPM	Suspended particulate matter.
SPOT	Satellite Pour Observation de la Terre.
STUK	Finnish Centre for Radiation and Nuclear Safety.
Subarctic (or forest tundra)	Transition zone between the boreal forest and the treeless tundra.
Sv	Sievert (unit).
Svd	Sverdrup (unit = $10^6$ m <sup>3</sup> /s).
T3	Triiodothyronine.
T4	Thyroxine.
Talik	Unfrozen section within permafrost.
TAPS	Trans-Alaskan Pipeline System.
TBT	Tributyltin.
TCDD	2,3,7,8-tetrachlorodibenzo- <i>p</i> -dioxin.
TDC	(AMAP) Thematic Data Centre.
TDI	Tolerable Daily Intake.
TE	Transient eddies.
TeBDE	Tetrabrominated diphenyl ethers.
TeCB	Tetrachlorobiphenyl.
TeCDD	Tetrachlorodibenzo- <i>p</i> -dioxin.

TeCDF	Tetrachlorodibenzofuran.
TEF	Toxic equivalency factor.
TEL	Threshold effect level.
TEQ	TCDD equivalents.
TL	Trophic level.
TOC	Total organic carbon.
TOMS	Total Ozone Mapping Spectrometer / System.
Total PCB	An (older) method for expressing the PCB content of a sample in which the sample is quantitated against a technical PCB product (such as Aroclor 1254) as the standard. The analysis is carried out using packed column chromatography. Also termed PCB on a formulation basis.
Toxaphene	Polychlorobornanes and camphenes.
Transpolar Drift	Major current system in the Arctic Ocean: surface current traversing the Arctic Ocean from the Chukchi Sea to the North Greenland Sea. (See also Beaufort Gyre.)
Treeline	Northern limit beyond which trees do not grow.
TSH	Thyroid-stimulating hormone.
TSS	Total suspended sediment.
TT3	Total triiodothyronine.
TT4	Total thyroxine.
TTR	Transthyretin.
TTR-RBP	Transthyretin-retinol-binding protein.
UARS	Upper Atmosphere Research Satellite.
UK	United Kingdom.
UN-ECE	United Nations Economic Commission for Europe.
UNEP	United Nations Environment Programme.
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation.
US, U.S., USA	United States (of America).
USDOE	United States Department of the Environment.
USEPA	United States Environmental Protection Agency.
UV	Ultraviolet radiation (100-400 nm).
UV-A	Ultraviolet radiation - A (315-400 nm).
UV-B	Ultraviolet radiation - B (280-315 nm).
UV-C	Ultraviolet radiation - C (100-280 nm).
UVECOS	UV-B radiation on European heathlands (EU project).
UVRAPPF	Ultraviolet Radiation in the Arctic; Past, Present and Future (EU project).
$V_d$	Particle deposition velocity.
VOCs	Volatile organochlorines.
VP	Vapor pressure.
$VP_L$	Subcooled liquid vapor pressure.
VVER	Water-cooled and water-moderated atomic energy reactor.
WCRP	(WMO) World Climate Research Programme.
Wet deposition	Delivery of airborne contaminants to the surface as a result of their incorporation into rain or snow which subsequently falls to the ground.
WHO	(UN) World Health Organization.
WMO	(UN) World Meteorological Organization.
$W_p$	Particle scavenging ratio.
ww	Wet weight – basis of determination of concentration.
WWF	World Wide Fund for Nature.
Xenobiotic	Chemical compound that is foreign to an organism; normally a synthetic chemical compound.
y	Year.