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Acronyms

AACO Army Aviation Centre Oakey
AA-QS annual average quality standards

ADONA trade name for 4,8-dioxa-3H-perfluorononanoate

AERMOD American Meteorological Society/EPA Regulatory Model

AFCEC Air Force Civil Engineering Center

AFFF aqueous film-forming foam alanine aminotransferase

amu atomic mass unit

ANSES French National Agency for Food Safety, Environment and Labor

ANSI American National Standards Institute

AOF adsorbable organic fluorine

APC air pollution control

APFN ammonium perfluoronanoate
APFO ammonium perfluorooctanoate

ARAR applicable or relevant and appropriate requirement

AM arithmetic mean

ANPRM Advance Notice of Proposed Rulemaking

ARP advanced reduction processes

ATSDR Agency for Toxic Substances and Disease Registry

AWI Air-water interface

AWQC ambient water quality criteria

BAF bioaccumulation factor

BARC bottom antireflective coatings

BAT best available technology economically achievable

BBMD Bayesian benchmark dose bioconcentration factor

BERA baseline ecological risk assessment

bgs below ground surface **BMD** benchmark dose

BMF biomagnification factor
BMP best management practices

BOHP $Bi_3O(OH)(PO_4)_2$

BSAF biota-sediment accumulation factor
BuFASA N-butyl perfluoroalkane sulfonamide

BufaseN-butyl perfluoroalkane sulfonamido ethanols

N-butyl perfluoroalkane sulfonamido acetic acid

BW bed volume body weight C carbon

C&D historical name for PFOA construction and demolition

CAA Clean Air Act

CAC colloidal activated carbon

CalEPA California Environmental Protection Agency
CAP chemical action plan, or corrective action plan

CAPEX capital expenses

CAS Chemical Abstracts Service

CBPR community-based participatory research

CCL Contaminant Candidate List continuing calibration verification

CDC U.S. Centers for Disease Control and Prevention

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFR Code of Federal Regulations
CHP catalyzed hydrogen peroxide
CIC combustion ion chromatography

CIMS chemical ionization mass spectrometry

CL clearance factor

CIPFPECA chloroperfluoropolyether carboxylate

CMC critical micelle concentrations

CNT carbon nanotube

COOH carboxylic acid functional group

CSF cancer slope factor
CSM conceptual site model
CWA Clean Water Act
Dalton (unit of mass)

DDT dichlorodiphenyltrichloroethane

DIN EN Deutsches Institut für Normung, German Institute for Standardization, English

DMSO dimethyl sulfoxide

DNAPL dense nonaqueous phase liquid

DOC dissolved organic carbon data quality objective

DW drinking water

DWR durable water repellent

EAO emergency administrative order

EBCT empty bed contact time

ECCC Environment and Climate Change Canada

ECF electrochemical fluorination **ECHA** European Chemicals Agency

ECOS Environmental Council of the States

ECT Emerging Compound Treatment Technologies, Inc.

EE/CA Engineering Evaluation/Cost Analysis

EIS extraction internal standards
ELG effluent limitation guidelines
EPC exposure point concentration
ERA ecological risk assessment
ERB equipment rinse blank

ESS Environmental Sequence Stratigraphy

ESTCP Environmental Security Technology Certification Program

EtFASA *N*-ethyl perfluoroalkane sulfonamide

EtFASE N-ethyl perfluoroalkane sulfonamido ethanol (var: N-ethyl perfluoroalkane sulfonamide

ethanol)

EtFASAA N-ethyl perfluoroalkane sulfonamido acetic acid (var: N-ethyl perfluoroalkane sulfonamide

acetic acid)

ETFE ethylene tetrafluoroethylene

EtFOSA *N*-ethyl perfluorooctane sulfonamide

EtFOSE N-ethyl perfluorooctane sulfonamido ethanol (var: N-ethyl perfluorooctane sulfonamide

ethanol)

EU European Union

F fluorine

F-53B chlorinated polyfluorinated ether sulfonate (PFOS substitute for plating)

F3 fluorine-free foams

FAA Federal Aviation Administration FAQ frequently asked questions FASA perfluoroalkane sulfonamide

FASE perfluoroalkane sulfonamido ethanol (var: perfluoroalkane sulfonamide ethanol)

FASAA perfluoroalkane sulfonamido acetic acid (var: perfluoroalkane sulfonamide acetic acid)

FCS food contact materials

FCS food contact substances

FD field duplicate

FDA U.S. Food and Drug Administration

FEC Foam Exposure Committee

FECA fluorinated ether carboxylate

FEP perfluorinated ethylene-propylene

FFFC Fire Fighting Foam Coalition

FFFP film-forming fluoroprotein foam

FhxSA perfluorohexane sulfonamide

foc fraction of organic carbon

FOSA, or PFOSA perfluorooctane sulfonamide

FOSE perfluorooctane sulfonamido ethanol (var: perfluorooctane sulfonamide ethanol)

FOSAA perfluorooctane sulfonamido acetic acid (var: perfluorooctane sulfonamide acetic acid)

FP fluoroprotein (used in the contex of firefighting foam formulations that contain a

fluorinated surfactant)

FRB field reagent blank

FRM Federal Reference Method

FSANZ Food Standards Australia and New Zealand

FTA free thyroxine fire training area

FTCA fluorotelomer carboxylic acid

FT-ICR Fourier transform ion cyclotron resonance

FTOH fluorotelomer alcohol

FTSA or FTS fluorotelomer sulfonate, fluorotelomer sulfonic acid

FTUCA fluorotelomer thioether amido sulfonate fluorotelomer unsaturated carboxylic acid

FWQC federal water quality goal
GAC granular activated carbon
GC gas chromatography

GC/MS Gas chromatography/mass spectrometry

GEF Global Environment Facility

GenX trade name for a polymerization processing aid formulation that contains ammonium

2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate

GLI Great Lakes Initiative
GM geometric mean

GMAV genus mean acute value

HA health advisory

HASP Health and Safety PlanHDPE high-density polyethylene

HFPO-DA hexafluoropropylene oxide dimer acid

HHRA human health risk assessment

HI hazard index HQ hazard quotient

HRMS high-resolution mass spectrometryHRSC High-resolution site characterization

IARC International Agency for Research on Cancer
ICAO International Civil Aviation Organization

ICV initial calibration verification
IDA isotope dilution analysis
IDW investigation-derived waste

IPEN International Pollutants Elimination Network

IRIS Integrated Risk Information System

ITRC Interstate Technology and Regulatory Council

IX ion exchange

K_d bulk partitioning coefficient

K_{oc} organic carbon partitioning coefficent

K_{ow} water/octanol coefficientLC liquid chromatography

LC/MS/MS liquid chromatography/mass spectrometry/mass spectrometry

LCS lab control sample

LCPFAC long-chain perfluoroalkyl carboxylate

LDPE low-density polyethylene

LEAF Leaching Environmental Assessment Framework

LHA lifetime health advisory

LHWA Little Hocking Water Association
LNAPL light nonaqueous phase liquid

LOAEL lowest observed adverse effect level lowest observed effect concentration

LOQ limit of quantitation

MA DEP Massachusetts Department of Environmental Protection

MAC-QS maximum acceptable quality standards

MALDI-TOF matrix-assisted laser desorption/ionization time-of-flight

MCL Maximum Contaminant Level

MDH Minnesota Department of Health

MeFASA N-methyl perfluoroalkane sulfonamide

MeFASE N-methyl perfluoroalkane sulfonamido ethanol (var: N-methyl perfluoroalkane sulfonamide

ethanol)

MeFASAA N-methyl perfluoroalkane sulfonamido acetic acid (var: N-methyl perfluoroalkane

sulfonamide acetic acid)

MeFOSA N-methyl perfluorooctane sulfonamide

MEP Multiple Extraction Procedure

ML method limit

MNA monitored natural attenuation

MOA mode of action

MPCA Minnesota Pollution Control Agency

MRL minimal risk level, or minimum reporting limit (laboratory analytical)

MRM multiple reaction monitoring

MS mass spectrometry
MSD matrix spike duplicate
MSW municipal solid waste
MWCO molecular weight cut-off
NAM new assessment method
NaPFO sodium perfluorooctanoate
NAPL nonaqueous phase liquid

NCOD National Contaminant Occurrence Database

NER non-extractable residues

NESHAP National Emissions Standards for Hazardous Air Pollutants

N-EtFOSA N-ethyl perfluorooctane sulfonamide

NF nanofiltration

NFPA National Fire Protection Association
NGWA National Groundwater Association

NHANES
National Health and Nutrition Examination Survey
NHDES
New Hampshire Department of Environmental Services
NJ DEP
New Jersey Department of Environmental Protection

NJDWQI New Jersey Drinking Water Quality Institute

NMeFOSAA N-Methylperfluorooctane sulfonamidoacetic acid

NOAEL no observed adverse effect level NOEC no observed effect concentration

NOM natural organic matter

NOx nitrogen oxides

NPCA Norwegian Pollution Control Agency

NPDES National Pollutant Discharge Elimination System
NPDWRs National Primary Drinking Water Regulations

NPL National Priorities List

NSF National Sanitation Foundation
NTP National Toxicology Program
NWQC national water quality criteria

NYDEC New York State Department of Environmental Conservation

O&M operation and maintenance
OAT organic anion transporter protein

OC organic carbon

OCPSF organic chemicals, plastics and synthetic fibers

OECD Organisation for Economic Co-operation and Development
OEHHA Office of Environmental Health Hazard Assessment (California)

OH hydroxide ion, or hydroxyl group (<u>Helmenstine 2018</u>)

OPEX operating expenses

ORD Office of Research and Development (USEPA)

OSB oriented strand board

OU operable unit

PAB permeable absorptive barrier

PA DEP Pennsylvania Department of Environmental Protection

PAC powdered activated carbon
PAF perfluoroalkanoyl fluorides

PAH polycyclic aromatic hydrocarbon
PASF perfluoroalkane sulfonyl fluoride
PBSF perfluorobutane sulfonyl fluoride
PBT persistent, bioaccumulative, and toxic

PCA principal components analysis
PCBs polychlorinated biphenyls

PCE perchloroethylene
PE performance evaluation
PFA perfluoroalkoxy polymer
PFAA perfluoroalkyl acid
PFAI perfluoroalkyl iodides

PFAS per- and polyfluoroalkyl substances

PFBA perfluorobutanoate, perfluorobutanoic acid, perfluorobutyrate, perfluorobutyric acid

PFBE perfluorobutyl ethylene

PFBS perfluorobutane sulfonate, perfluorobutane sulfonic acid **PFC** perfluorocarbon (C_nF_{2n+1} , for example, perfluorocatane)

Do not use this acronym for any other description including perfluorinated compound or

perfluorochemical.

PFCA perfluoroalkyl carboxylate, perfluoroalkyl carboxylic acid

PFDA perfluorodecanoate, perfluorodecanoic acid **PFDoA, or PFDoDA** perfluorododecanoate, perfluorododecanoic acid

PFDoS, **or PFDoDS** perfluorododecane sulfonate, perfluorododecane sulfonic acid **PFDS** perfluorodecane sulfonate, perfluorodecane sulfonic acid

PFECA per- or polyfluoroalkyl ether carboxylic acid
PFEI perfluoroethyl iodide (aka fluorotelomer iodide)
PFESA per- or poly- fluoroalkyl ether sulfonic acid
PFHpA perfluoroheptanoate, perfluoroheptanoic acid

PFHpS perfluoroheptane sulfonate, perfluoroheptane sulfonic acid

PFHxA perfluorohexanoate, perfluorohexanoic acid

PFHxS perfluorohexane sulfonate, perfluorohexane sulfonic acid

PFIB perfluoroisobutylene

PFMOAA perfluoro-2-methoxyacetic acid

PFNA perfluorononanoate, perfluorononanoic acid

PFNS perfluorononane sulfonate, perfluorononane sulfonic acid

PFOA perfluorooctanoate, perfluorooctanoic acid, perfluorooctane carboxylate

PFOS perfluorooctane sulfonate, perfluorooctane sulfonic acid

PFPA perfluorophosphonic acid
PFPE perfluoropolyether

PFPeA perfluoropentanoate, perfluoropentanoic acid

PFPeS perfluoropentane sulfonate, perfluoropentane sulfonic acid

PFPiA perfluorophosphinic acid

PFSA perfluoroalkyl sulfonate, perfluoroalkane sulfonic acid

PFSiA perfluoroalkyl sulfinic acid
PFTeDA, or PFTA perfluorotetradecanoic acid

PFTeDS, or PFTS perfluorotetradecane sulfonate, perfluorotetradecane sulfonic acid

PFTrDA, or PFTriA perfluorotridecanoic acid

PFTrDS, or PFTriS perfluorotridecane sulfonate, perfluorotridecane sulfonic acid

PFUnA, or PFUnDA perfluoroundecanoate, perfluoroundecanoic acid

PFUnS, or PFUnDS perfluoroundecane sulfonate, perfluoroundecane sulfonic acid

pg/m³ picogram per cubic meter

pH negative log of hydrogen ion concentration (measure of acidity)

PHxSF perfluorohexane sulfonyl fluoride
PICs products of incomplete combustion

PIGE partice-induced gamma-ray emission spectroscopy

PIH pregnancy-induced hypertension
PILI polymer with ionic liquid coated iron
PNEC predicted no-effect concentration
POD porewater observation device

POE point of exposure

POET point of entry treatment

polyDADMAC Polydiallyldimethylammonium chloride

POP persistent organic pollutant

POPRC-14 14th meeting of the POPs Review Committee

POSF perfluorooctane sulfonyl fluoride

POU point of use

PPAR-α peroxisome proliferator-activated receptor- α

ppb parts per billion

PPE personal protective equipment

ppm parts per million
ppt parts per trillion

PPRTV Provisional Peer-Reviewed Toxicity Values

PSA prostate-specific antigen
PSD passive sampling device
PTFE polytetrafluoroethylene
PUF polyurethane foam
PVDF polyvinylidene fluoride
PWS public water system
QA quality assurance

QAPP quality assurance project plan

QC quality control QL quantitation limit

QPD qualified products database
QPL Qualified Product Listing

QSAR quantitative structure-activity relationship

QSM Quality Systems Manual

qTOF/MS quadrupole time of flight-mass spectrometry

RAO remedial action objective

RCRA Resource Conservation and Recovery Act

REACH European Chemicals Regulation

RfD reference dose

RI/FS Remedial Investigation/Feasibility Study

RIVM Netherlands National Institue for Public Health and the Environment

RL reporting limit

RML removal management level

RO reverse osmosis

RPD relative percent difference
RPF relative potency factor
RSC relative source contribution

RSL regional screening level (Note: In many commercial venues RSL means "restricted

substances list.")

RSSCT rapid small-scale column testing
SAP Sampling and Analysis Plan
SCWO supercritical water oxidation

s.d. or SD standard deviationSDS Safety Data SheetSDWA Safe Drinking Water Act

SERDP Strategic Environmental Research and Development Program

SIP sorbent-impregnated polyurethane foam

SL screening level

SMART specific, measurable, attainable, relevant, and timely (goal)

SMAV species mean acute value

SMLsurface micro layerSMZsurface-modified zeolitesSNURSignificant New Use RuleSPEsolid-phase extraction

SPLP Synthetic Precipitation Leaching Procedure

SSD species sensitivity distributionSTAR Spill Tactics for Alaska Responders

TANA Technical Assistance Needs Assessments

TARC top-layer antireflective coatings

TBC to-be-considered values

TBEL technology-based effluent limits

TCE trichloroethene

TCEQ Texas Commission for Environmental Quality
TCLP Toxicity Characteristic Leaching Procedure

TDS total dissolved solids
TEQ toxic equivalency quotient

TFE tetrafluoroethylene

TMDL total maximum daily loads
 TMF trophic magnification factor
 TO Toxic Organic (method)
 TOC total organic carbon

TOF time-of-flight

TOP total oxidizable precursor
TRRP Texas Risk Reduction Program

TRV toxicity reference value

TSH Thyroid-stimulating hormones
TSCA Toxic Substances Control Act
target organ toxicity doses

UCMR Unregulated Contaminant Monitoring Rule

UF ultrafiltration

mg/kgmicrograms per kilogramULUnderwriters Laboratories

U.S.C. United States Code

USDOD United States Department of Defense
USDW Underground sources of drinking water

USEPA United States Environmental Protection Agency

USGS United States Geological Survey

VDEC Vermont Department of Environmental Conservation

VDH Vermont Department of Health **VOC** volatile organic compound

WQBEL water quality-based effluent limits

WV wildlife value **ww** wet weight

WWTP wastewater treatment plant

ZVI zero-valent iron

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