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Dr. Angela Nugent, Designated Federal Officer, U.S. Environmental Protection Agency, Washington, DC

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List of Chemical Abbreviations

C	Carbon
CFC	Chlorofluorocarbon
DIN	Dissolved inorganic nitrogen
DO	Dissolved oxygen
Fe	Iron
H	Hydrogen
HNO ₃	Nitric acid
HONO	Nitrous acid
N	Nitrogen
N ₂	Diatomic (molecular) nitrogen
N ₂ O	Nitrous oxide,
N ₂ O ₅	Dinitrogen pentoxide (nitric acid anhydride)
NH ₃	Ammonia
NH ₄ ⁺	Ammonium
NH _x	NH ₃ NH ₄ ⁺
NO	Nitric oxide
NO ₂	Nitrogen dioxide
NO ₃ ⁻	Nitrate ion
NO ₃	Nitrate radical
N _{org}	Organic nitrogen
NO _x	Nitrogen oxides (NO + NO ₂)
NO _y	Total reactive oxidized nitrogen (NO, NO ₂ , NO ₃ , 2xN ₂ O ₅ , HONO, HNO ₃ , NO ₃ ⁻ , PAN and other organo-nitrates, RONO ₂)
Nr	Reactive nitrogen
O ₂	Oxygen
OH	Hydroxyl radical
P	Phosphorus
PAN	Peroxy acetyl nitrate
PM	Particulate matter
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
PM ₁₀	Particulate matter less than 10 microns in diameter
RONO ₂	Organic nitrates
Si	Silicon
SO ₂	Sulfur dioxide
SO ₄ ²⁻	Sulfate
TAN	Total ammonical nitrogen

List of Acronyms and Abbreviations

AAPFCO	Association of American Plant Food Control Officials
AARA	American Reinvestment and Recovery Act
AIRMON	Atmospheric and Integrated Research Monitoring Network
AOB	Ammonia oxidizing bacteria
BL	Boundary layer
BMP	Best management practice
BNF	Biological nitrogen fixation
BNR	Biological nutrient (or nitrogen) removal
CAA	Clean Air Act
CAFO	Concentrated animal feeding operation
CAIR	Clean Air Interstate Rule
CALM	Consolidated Assessment and Listing Methodology
CAST	Council for Agricultural Science and Technology
CASTNET	Clean Air Standards and Trends Network
C-BNF	Cultivation-induced biological nitrogen fixation
CCC	Criterion continuous concentration
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CL	Critical load (threshold of Nr loading at which negative impacts have been documented)
CLAD	Critical Loads Ad-Hoc Committee
CMAQ	Community multiscale air quality
CMC	Criterion maximum concentration
CRP	Conservation Reserve Program
CSO	Combined sewer overflow
CTM	Chemical Transport Models
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund (construction grants program under the Clean Water Act)
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EGU	Electricity generating units
EFD	Essential Facilities Doctrine
EGR	Exhaust gas recirculation
EISA	Energy Independence and Security Act
EPA	United States Environmental Protection Agency
EQIP	Environmental Quality Incentives Program
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FAOSTAT	Food and Agricultural Organization Statistical Database
FGR	Flue-gas recirculation

ha	Hectare
GHG	Greenhouse gas
GPS	Geographic Positioning System
HAB	Harmful algal bloom
IPCC	Intergovernmental Panel on Climate Change
ISA	Integrated Science Assessments
ITQ	Individual transferable quota
kg	Kilogram
L	Liter
LA	Load allocation
LCA	Life cycle analysis
LISS	Long Island Sound Study
MCL	Maximum contaminant level
MCLG	Maximum contaminant level goal
mg	Milligrams
MGD	Million gallons per day
MJ	Megajoule (one million joules)
Mmt	Million metric tons
MT	metric tons
MOM	Mississippi-Ohio-Missouri
MRB	Mississippi River Basin
MS4	Municipal separate storm sewer system
NAAQS	National Ambient Air Quality Standards
NADP	National Atmospheric Deposition Program
NASS	National Agricultural Statistics Service Information
NCA	National Coastal Assessment
NCE	Nitrogen Credit Exchange
NCCR	National Coastal Condition Report
NEEA	National Estuarine Eutrophication Assessment
NESCAUM	Northeast States for Coordinated Air Use Management
NFUE	Nitrogen fertilizer use efficiency. Calculated as the ratio of grain yield to the quantity of applied N fertilizer (kg grain/kg applied N).
NMP	Nutrient management plan
NOAA	National Oceanic and Atmospheric Administration
NPS	Nonpoint source
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NRD	Natural Resource District
NRI	National Resources Inventory
NTN	National Trends Network

NUE	Nitrogen use efficiency. NUE is defined as the kg grain produced per kg of total N used by the crop, where total N includes N from fertilizer, biological N fixation, and soil organic matter mineralization
OTAG	Ozone Transport Assessment Group
OTC	Ozone Transport Commission
PE	Physiological efficiency (physiological efficiency with which the N taken up by the crop is used to produce economic yield such as grain or fruit, quantified by kg increase in economic yield per kg of N accumulation in above ground crop biomass)
PFP	Partial factor productivity
POTW	Publicly owned treatment works
PSD	Prevention of significant deterioration
RE	Recovery efficiency (kg N uptake per kg N applied)
SAV	Submerged aquatic vegetation
SNCR	Selective non-catalytic reduction
SCR	Selective catalytic reduction
SIP	State Implementation Plan
SOM	Soil organic matter
SPARROW	Spatially Referenced Regressions on Watershed Attributes Model
STP	Sewage treatment plant
SW	Storm water
SWAT	Storm Water Assessment Tool
SWPPP	Stormwater Pollution Prevention Plan
T	Temperature
Tg	Teragram (million metric tons or 10^{12} grams)
TMDL	Total maximum daily load
TN	Total nitrogen
UFTRS	Uniform Fertilizer Tonnage Reporting System
UNECE	United Nations Economic Commission for Europe
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USEPA	United States Environmental Protection Agency
WHO	World Health Organization
WLA	Wasteload allocation
WPCA	Water pollution control authorities
WRI	World Resources Institute
WRP	Wetland Reserve Program
WSA	Wadeable Stream Assessment