



Variations to Technology- Based Effluent Limitations

Learning Objectives

- ◆ Explain role of variances in NPDES permits
- ◆ Describe types of variances
- ◆ Discuss relief granted by variances
- ◆ Describe variance initiation and review processes

Role of Variances in NPDES Permits

- ◆ **Allows limited relief:**
 - **Effluent limits**
 - **Compliance deadlines**
- ◆ **Address exceptional circumstances**
- ◆ **Provides relief of NPDES program for “unusual” circumstances**
- ◆ **Only granted on rare occasions**
- ◆ **Some may be granted by States, others require EPA approval**



Types of Variances to Technology-Based Requirements

CWA	Type	40 CFR	Approval Authority
301 (c)	Economic Achievability	Part 125, Subpart E (Reserved)	EPA-HQ
301 (g)	Water Quality	Part 125, Subpart F (Reserved)	EPA – Regions HQ delegated authority
301 (h)	Secondary Treatment Waiver-Ocean Discharge (POTW)	Part 125, Subpart G	EPA – HQ
301 (n)	Fundamentally Different Factors (FDF)	Part 125, Subpart D	EPA - Regions HQ delegated authority
316 (a)	Thermal Discharges	Part 125, Subpart H	NPDES – State*
–	Intake – Discharge Net Basis (Net/Gross)	§122.45 (g)	NPDES State*

* EPA Region in absence of approved state NPDES program



Types of Variances to Technology-Based Requirements (continued)

- ◆ **301(c) Economic Achievability**
 - Nonconventionals only
 - BAT modification required
 - Maximum use of technology in place within economic capability of user
 - Result in further progress toward the no-discharge goal (i.e., BPT and WQ)
- ◆ **0 Applications, 0 Approvals**

Types of Variances to Technology-Based Requirements (continued)

- ◆ **301(g) Water Quality**
 - Variance from BAT only and only for:
 - Ammonia, Cl, color, iron, total phenols
 - Cannot require other PS or NPS to install additional controls
 - Still protects WQ and Human Health
- ◆ **60 Applications, 19 Approvals**

Types of Variances to Technology-Based Requirements (continued)

- ◆ **301(h) Secondary Treatment (POTWs)**
 - Primary treatment (30% BOD/TSS removal)
 - Pretreatment program required if >50K population or >5 MGD
 - No discharge of sludge
 - Application deadline is 12/29/82
- ◆ **208 Applications, 36 Approvals, 9 pending**

Types of Variances to Technology-Based Requirements (continued)

- ◆ **301(n) Fundamentally Different Factors**
 - Relief from ELGs (existing sources only)
 - Based on data submitted during rule making
 - Factors relating to facility, equipment, process, cost, energy use, etc.
- ◆ **200 Applications, 10 Approvals, 110 pending**

Types of Variances to Technology-Based Requirements (continued)

- ◆ **316(a) Thermal Discharges**
 - Demonstrate that alternate thermal limit will ensure propagation of fish, etc.
 - May be based on absence of prior harm
 - Primarily power plants
- ◆ **Unknown number of applications or approvals, but not that uncommon**

Types of Variances to Technology-Based Requirements (continued)

- ◆ **Intake Allowance/Net-Gross**
 - Adequate control without intake constituents
 - Same body of water
 - Similar types of pollutants
 - Influent monitoring in permit required
- ◆ **Unknown number of applications or approvals but very uncommon**

Initiation of Variance Requests

- ◆ Variance applications submitted by the discharger, must be submitted before the close of the public comment period of the permit
- ◆ FDF variance requests must be requested by the discharger within 180 days of the guideline promulgation