

should be provided for a six month period of normal operation of the production and treatment facilities. The complete data as well as a data summary including the maximum, minimum, and mean gross discharge loadings and the standard deviation of the discharge loadings for each monitored pollutant should be provided. Any supplemental monitoring data for toxic pollutants should also be provided.

(iii) A scale map of the area of the plant served by the wastewater treatment facility, including the treatment facility and water supply and discharge points;

(iv) An estimate of the least costly investment required to meet the generally applicable limitations or standards for the facility and a description of such treatment system including schematic diagrams showing the major treatment system components and flow rates through the system. As a minimum, the cost estimates should be comprised of a single page summary for each water pollution control system showing estimated installed direct cost totals for mechanical equipment; piping and instrumentation; foundations and structural components; and, electrical components. Indirect costs for contingencies, overhead and profit, engineering fees, and any other indirect costs must be itemized separately. The sum of the direct and indirect costs which represents the owner's or operator's total estimate, must be shown.

(v) The effluent limitations or standards which could be achieved if the discharger were to spend an amount equal to the Agency's model treatment system cost estimate for the facility and the treatment facilities which would be used to meet those limitations or standards. Schematic diagrams and cost estimates as outlined in paragraph (b)(2)(iv) of this section, should be provided for each treatment system; and,

(vi) Production rates in tons per day for each process contributing wastewater to the central treatment facility consistent with those reported by the owner or operator in the NPDES permit application for the central treatment facility.

(3) The request described in subsection (b)(1) of this section, must be based upon the owner's or operator's

belief that the cost of bringing the specified central treatment facilities into compliance with the provisions of this part would require expenditures so high compared to the Agency's model treatment system cost estimate applicable to that facility that the applicable limitations or standards would not represent BPT, BAT, BCT, or PSES, as the case may be, for the facility.

[47 FR 23284, May 27, 1982, as amended at 47 FR 41739, Sept. 22, 1982]

§ 420.02 General definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

(a) The term *TSS* (or total suspended solids, or total suspended residue) means the value obtained by the method specified in 40 CFR 136.3.

(b) The term *oil and grease* (or O&G) means the value obtained by the method specified in 40 CFR 136.3.

(c) The term *ammonia-N* (or ammonia-nitrogen) means the value obtained by manual distillation (at pH 9.5) followed by the Nesslerization method specified in 40 CFR 136.3.

(d) The term *cyanide* means total cyanide and is determined by the method specified in 40 CFR 136.3.

(e) The term *phenols 4AAP* (or phenolic compounds) means the value obtained by the method specified in 40 CFR 136.3.

(f) The term *TRC* (or total residual chlorine) means the value obtained by the iodometric titration with an amperometric endpoint method specified in 40 CFR 136.3.

(g) The term *chromium* means total chromium and is determined by the method specified in 40 CFR 136.3.

(h) The term *hexavalent chromium* (or chromium VI) means the value obtained by the method specified in 40 CFR 136.3.

(i) The term *copper* means total copper and is determined by the method specified in 40 CFR 136.3.

(j) The term *lead* means total lead and is determined by the method specified in 40 CFR 136.3.

(k) The term *nickel* means total nickel and is determined by the method specified in 40 CFR 136.3.

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(l) The term *zinc* means total zinc and is determined by the method specified in 40 CFR 136.3.

(m) The term *benzene* (or priority pollutant No. 4) means the value obtained by the standard method Number 602 specified in 44 FR 69464, 69570 (December 3, 1979).

(n) The term *benzo(a)pyrene* (or priority pollutant No. 73) means the value obtained by the standard method Number 610 specified in 44 FR 69464, 69570 (December 3, 1979).

(o) The term *naphthalene* (or priority pollutant No. 55) means the value obtained by the standard method Number 610 specified in 44 FR 69464, 69571 (December 3, 1979).

(p) The term *tetrachloroethylene* (or priority pollutant No. 85) means the value obtained by the standard method Number 610 specified in 44 FR 69464, 69571 (December 3, 1979).

(q) The term *pH* means the value obtained by the standard method specified in 40 CFR 136.3.

(r) The term *non-process wastewaters* means utility wastewaters (for example, water treatment residuals, boiler blowdown, and air pollution control wastewaters from heat recovery equipment); treated or untreated wastewaters from groundwater remediation systems; dewatering water for building foundations; and other wastewater streams not associated with a production process.

(s) The term *nitrification* means oxidation of ammonium salts to nitrites (via Nitrosomas bacteria) and the further oxidation of nitrite to nitrate via Nitrobacter bacteria. Nitrification can be accomplished in either:

(1) A single or two-stage activated sludge wastewater treatment system; or

(2) Wetlands specifically developed with a marsh/pond configuration and maintained for the express purpose of removing ammonia-N.

Indicators of nitrification capability are:

(1) Biological monitoring for ammonia oxidizing bacteria (AOB) and nitrite oxidizing bacteria (NOB) to determine if the nitrification is occurring; and

(2) Analysis of the nitrogen balance to determine if nitrifying bacteria re-

duce the amount of ammonia and increase the amount of nitrite and nitrate.

(t) The term *storm water from the immediate process area* means storm water that comes into contact with process equipment located outdoors, storm water collected in process area and bulk storage tank secondary containment structures, and storm water from wastewater treatment systems located outdoors, provided that it has the potential to become contaminated with process wastewater pollutants for the particular subcategory. Storm water from building roofs, plant roadways, and other storm waters that do not have the potential to become contaminated with process wastewater pollutants are not storm water from the immediate process area.

(u) The term *2,3,7,8-TCDF* means 2,3,7,8-tetrachlorodibenzofuran.

[47 FR 23284, May 27, 1982, as amended at 67 FR 64260, Oct. 17, 2002]

§ 420.03 Alternative effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available, best available technology economically achievable, best available demonstrated control technology, and best conventional pollutant control technology (the “water bubble”).

(a) Except as provided in paragraphs (c) through (f) of this section, any existing or new direct discharging point source subject to this part may qualify for alternative effluent limitations to those specified in subparts A through M of this part, representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT), best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and best available demonstrated control technology (NSPS). The alternative effluent limitations for each pollutant are determined for a combination of outfalls by totaling the mass limitations allowed under subparts A through M of this part for each pollutant.