

TABLE VI.C.2.—NUTRIENT COST-EFFECTIVENESS: PHOSPHORUS—Continued

| Subcategory, sector, and option | Pre-tax annualized costs (\$2001) | Phosphorus removals (lb) | Cost-effectiveness (\$2001/pound) | |
|---------------------------------|-----------------------------------|--------------------------|-----------------------------------|--------------|
| | | | Average | Incremental |
| Non-commercial Recirculating | | | | |
| Option A | \$17,594 | 0 | ² | ² |
| Option 1 | 44,268 | 20 | 2,220 | 1,338 |
| Option B | 55,107 | 20 | 2,764 | NA |
| Option 2 | 59,558 | 20 | 2,987 | NA |
| Option 3 | 80,965 | 168 | 481 | 247 |

NA: The option higher costs, not related to nutrient removal, and equal removals compared to previous options.

¹ Option A is incremental to baseline, so the average and incremental values are listed as being the same.

² Undefined: Option costs are costs for BMP components that address invasive species, drugs, and chemicals that have no effect on nutrients, or facilities in these groups have adequate treatment in place to achieve requirements for pollutants in this table (*i.e.*, no incremental removals are estimated).

Due to differences in option requirements for the subcategories, as well as differences in facility counts between the proposed rule and this

NODA, it is difficult to compare cost-effectiveness values in Tables VI.C.1 and VI.C.2 directly to cost effectiveness values for the proposed rule. As a

consequence, Table VI.C.3 facilitates comparisons between proposal and this NODA.

TABLE VI.C.3.—COMPARISON OF NUTRIENT RESULTS—PROPOSAL AND NODA

| Production system | Total pre-tax annual costs (\$2001) | Average nutrient cost effectiveness (TN+TP) | | Average nutrient cost effectiveness (TN) | | Average nutrient cost effectiveness (TP) | |
|---------------------|-------------------------------------|---|-------|--|-------|--|-------|
| | | Removals | \$/lb | Removals | \$/lb | Re-movals | \$/lb |
| | Proposal | | | | | | |
| Flow-Through | 1,032,942 | 66,103 | 15.63 | 50,273 | 20.55 | 15,830 | 65.25 |
| Recirculating | 46,354 | 32,453 | 1.43 | 25,090 | 1.85 | 7,363 | 6.30 |
| Net Pens | 35,322 | 86,890 | 0.41 | 74,477 | 0.47 | 12,413 | 2.85 |
| NODA | | | | | | | |
| Flow-Through | 2,076,456 | 114,933 | 18.07 | 92,026 | 22.56 | 22,907 | 90.65 |
| Recirculating | 5,409 | 0 | 1 | 0 | 1 | 0 | 1 |
| Net Pens | 0 | 0 | 1 | 0 | 1 | 0 | 1 |

Note: Proposal costs, taken from Table IX.G.3 of the preamble from the proposed rule, were inflated to 2001 dollars. NODA results do not include costs or loads for facilities that produce 20,000 to 100,000 lbs/year. Option 1 is assumed for flow-through facilities in the size category 100,000 to 475,000 lbs/yr; Option 3 is assumed for all other flow-through and recirculating facilities.

¹ Undefined.

2. Cost-reasonableness Results

Table VI.C.4 shows the cost-reasonableness values for conventional pollutants. EPA estimated BOD and TSS removals for each facility for each option. Because BOD can be correlated with TSS, EPA selected the higher of the two values (not the sum) to avoid possible double-counting of removals.

In general, TSS is the more frequently the higher of the two. In Option 3 for example, TSS is higher than BOD in nearly four out of five facilities. For commercial flow-through facilities, cost-reasonableness ranges from \$1.53/lb to \$1.94/lb for Options A, B, 1, and 2. Option 3 shows a lower cost-reasonableness value than for the other options—\$0.64/lb. For non-commercial

flow-through facilities, cost-reasonableness is \$1.01/lb for option A and ranges from \$1.18/lb to \$1.70/lb for the other options. While cost-reasonableness is less than \$2/lb for all options for flow-through facilities, it is undefined for commercial recirculating facilities and ranges from \$5/lb to \$100/lb for non-commercial recirculating facilities.

TABLE VI.C.4.—COST-REASONABLENESS: BOD AND TSS

| Subcategory, sector, and option | Pre-tax annualized costs (\$2001) | BOD and TSS Removals (lb) ¹ | Cost-reasonableness (\$2001/pound) |
|---------------------------------|-----------------------------------|--|------------------------------------|
| Commercial Flow-Through | | | |
| Option A | 213,030 | 114,162 | 1.87 |
| Option 1 | 344,350 | 225,797 | 1.53 |
| Option 2 | 429,441 | 225,797 | 1.90 |