

Table 1 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Phosphoric Acid and Phosphate Fertilizers NESHAP - Year 1

| Burden Item | (A) Respondent Hours per Occurrence (Technical hours) | (B) Non-Labor Costs Per Occurrence | (C) Number of Occurrences Per Respondent Per Year | (D) Technical Hours per Respondent Per Year (A X D) | (E) Number of Respondents Per Year | (F) Technical Hours per Year (D X E) | (G) Clerical Hours per Year (F X 0.1) | (H) Management Hours per Year (F X .05) | (I) Total Labor Costs Per Year | (J) Total Non- Labor Costs Per Year (B x C x E) | (K) Total Number of Responses per Year (C X E) | Footnotes |
|--|--|---|--|--|---|--|---|---|---|---|---|-----------|
| 1. Applications | NA | | | | | | | | | | | |
| 2. Surveys and Studies | NA | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | |
| A. Read Rule | 20 | \$0 | 1 | 20 | 23 | 460 | 46 | 23 | \$43,471 | \$0 | 0 | a |
| B. Required Activities | | | | | | | | | | | | |
| 1. Mercury testing | 10 | \$6,400 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | b |
| 2. Hydrogen fluoride testing | | | | | | | | | | | | c |
| a. Incremental 320 Cost | 0 | \$8,000 | 1 | 0 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | c |
| b. Oxidation Reactors, Defluorination Units, & Clarifiers | 10 | \$15,000 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | c |
| 3. TF testing: Oxidation, Defluorination, & Clarifiers | 10 | \$5,600 | 1 | 10 | 8 | 80 | 8 | 4 | \$7,560 | \$44,800 | 0 | i |
| 4. Performance evaluation | 0 | \$2,000 | 1 | 0 | 23 | 0 | 0 | 0 | \$0 | \$46,000 | 0 | d |
| C. Create Information | Inc. in 3B | | | | | | | | | | | |
| D. Gather Information | Inc. in 3E | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | |
| 1. Performance test report | 10 | \$0 | 1 | 10 | 7 | 70 | 7 | 4 | \$6,615 | \$0 | 7 | e |
| 2. Develop monitoring plan | 15 | \$0 | 1 | 15 | 23 | 345 | 35 | 17 | \$32,603 | \$0 | 23 | f |
| 3. Prepare gypsum stack management plan | 20 | \$0 | 1 | 20 | 12 | 240 | 24 | 12 | \$22,681 | \$0 | 12 | g |
| Reporting Subtotal | | | | | | 1195 | 120 | 60 | \$112,930 | \$90,800 | 42 | |
| 4. Recordkeeping Requirements | | | | | | | | | | | | |
| A. Read Instructions | Inc. in 3A | | | | | | | | | | | |
| B. Implements Activities | NA | | | | | | | | | | | |
| C. Develop Record System | NA | | | | | | | | | | | |
| D. Record information | | | | | | | | | | | | |
| 1. Records of Hg testing | 3 | \$0 | 1 | 3 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 2. Records of HF/TF testing | 3 | \$0 | 1 | 3 | 8 | 24 | 2 | 1 | \$2,268 | \$0 | 0 | |
| 3. Records of Hg control device | 10 | \$0 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | h |
| E. Personnel Training | Inc. in 3B | | | | | | | | | | | |
| F. Time for Audits | NA | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 24 | 2 | 1 | \$2,268 | \$0 | 0 | |
| TOTAL | | | | | | 1219 | 122 | 61 | \$115,198 | \$90,800 | 42 | |
| Summary of Respondent Burden | | | | | | Total Hours | Labor | Non-Labor | Total | | | |
| Initial Capital and Startup | | | | | | 1,402 | \$115,198 | \$90,800 | \$205,998 | | | |
| Annualized Capital/Start-up and O & M | | | | | | | | \$43,471 | | | | |
| | | | | | | | | \$134,271 | | | | |

Footnotes:

- (a) Facilities must read Subparts AA and BB, first year only. There are 23 process units at the 13 facilities, 12 phosphoric acid units and 11 phosphate fertilizer units.
- (b) Facilities are not subject to annual Hg testing the first or second years, costs are provided in year 3.
- (c) Facilities are not subject to annual HF testing the first year, costs are provided in years 2 and 3.
- (d) Facilities must follow performance evaluation criteria (calibrations) for control devices. There are 23 process units at the 13 facilities, 12 phosphoric acid units and 11 phosphate fertilizer units.
- (e) Includes additional data submitted for Hg and HF tests, for emission points not currently tested. The facilities' emission points that currently conduct TF tests are not considered, as they must already report their data. No additional Hg and HF tests would be performed in year 1.
- (f) Includes development of CPMS performance evaluations/calibration for scrubbers. There are 23 process units at the 13 facilities, 12 phosphoric acid units and 11 phosphate fertilizer units.
- (g) Includes preparation of gypsum stack and cooling pond management plan for the 12 phosphoric acid facilities. Assumed that each facility would already be employing one of the control measures, so additional costs to implement a control measure were not estimated.
- (h) One facility will install a carbon adsorption system and must determine the carbon bed life; costs not applicable until year 3.
- (i) There are 8 emission points (oxidation reactors, defluorination units, and clarifiers) that are currently not tested, but are applicable as noted in the subpart AA clarifications. These emissions points will conduct total fluoride tests in year 1, before transitioning to HF testing in years 2 and 3.

Table 2 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Phosphoric Acid and Phosphate Fertilizers NESHAP - Year 2

| Burden Item | (A) Respondent Hours per Occurrence (Technical hours) | (B) Non-Labor Costs Per Occurrence | (C) Number of Occurrences Per Respondent Per Year | (D) Technical Hours per Respondent Per Year (A X D) | (E) Number of Respondents Per Year | (F) Technical Hours per Year (D X E) | (G) Clerical Hours per Year (F X 0.1) | (H) Management Hours per Year (F X .05) | (I) Total Labor Costs Per Year | (J) Total Non- Labor Costs Per Year (B x C x E) | (K) Total Number of Responses per Year (C X E) | Footnotes |
|--|--|---|--|--|---|--|---|---|---|---|---|-----------|
| 1. Applications | NA | | | | | | | | | | | |
| 2. Surveys and Studies | NA | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | |
| A. Read Rule | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| B. Required Activities | | | | | | | | | | | | |
| 1. Mercury testing | 10 | \$6,400 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | b |
| 2. Hydrogen fluoride testing | | | | | | | | | | | | c |
| a. Incremental 320 Cost | 0 | \$8,000 | 1 | 0 | 78 | 0 | 0 | 0 | \$0 | \$624,000 | 0 | c |
| b. Oxidation Reactors, Defluorination Units, & Clarifiers | 10 | \$15,000 | 1 | 10 | 8 | 80 | 8 | 4 | \$7,560 | \$120,000 | 0 | c |
| 3. TF testing: Oxidation, Defluorination, & Clarifiers | 10 | \$5,600 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | g |
| 4. Performance evaluation | 0 | \$2,000 | 1 | 0 | 23 | 0 | 0 | 0 | \$0 | \$46,000 | 0 | d |
| C. Create Information | Inc. in 3B | | | | | | | | | | | |
| D. Gather Information | Inc. in 3E | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | |
| 1. Performance test report | 10 | \$0 | 1 | 10 | 7 | 70 | 7 | 4 | \$6,615 | \$0 | 7 | e |
| 2. Develop monitoring plan | 15 | \$0 | 1 | 15 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| 3. Prepare gypsum stack management plan | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| Reporting Subtotal | | | | | | 150 | 15 | 8 | \$14,175 | \$790,000 | 7 | |
| 4. Recordkeeping Requirements | | | | | | | | | | | | |
| A. Read Instructions | Inc. in 3A | | | | | | | | | | | |
| B. Implements Activities | NA | | | | | | | | | | | |
| C. Develop Record System | NA | | | | | | | | | | | |
| D. Record information | | | | | | | | | | | | |
| 1. Records of Hg testing | 3 | \$0 | 1 | 3 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | |
| 2. Records of HF testing | 3 | \$0 | 1 | 3 | 8 | 24 | 2 | 1 | \$2,268 | \$0 | 0 | |
| 3. Records of Hg control device | 10 | \$0 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | f |
| E. Personnel Training | Inc. in 3B | | | | | | | | | | | |
| F. Time for Audits | NA | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 24 | 2 | 1 | \$2,268 | \$0 | 0 | |
| TOTAL | | | | | | 174 | 17 | 9 | \$16,443 | \$790,000 | 7 | |
| | | | | | | Total Hours | Labor | Non-Labor | Total | | | |
| | | | | | | Summary of Respondent Burden | 200 | \$16,443 | \$790,000 | \$806,443 | | |
| | | | | | | Initial Capital and Startup | | \$0 | | | | |
| | | | | | | Annualized Capital/Start-up and O & M | | \$790,000 | | | | |

Footnotes:

- (a) Only applicable to first year.
- (b) Facilities are not subject to annual Hg testing the first or second years, costs are provided in year 3.
- (c) Must perform annual HF testing. For 78 emission points, the incremental cost for using Method 320 versus 13B are included (\$8,000). There are 8 emission points (oxidation reactors, defluorination units, and clarifiers) that are currently not tested, but are applicable as noted in the subpart AA clarifications (they would incur the full Method 320 cost of \$15,000).
- (d) Facilities must follow performance evaluation criteria (calibrations) for control devices. There are 23 process units at the 13 facilities, 12 phosphoric acid units and 11 phosphate fertilizer units.
- (e) Includes additional data submitted for Hg and HF, for emission points not currently tested. The facilities' emission points that currently conduct TF tests are not considered, as they must already report their data. Only facilities that perform HF tests are included in year 2 costs.
- (f) One facility will install a carbon adsorption system and must determine the carbon bed life; costs not applicable until year 3.
- (g) Facilities will perform HF tests instead of TF tests from year 2 forward.

Table 3 - Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Phosphoric Acid and Phosphate Fertilizers NESHA P - Year 3

| Burden Item | (A) Respondent Hours per Occurrence (Technical hours) | (B) Non-Labor Costs Per Occurrence | (C) Number of Occurrences Per Respondent Per Year | (D) Technical Hours per Respondent Per Year (A X D) | (E) Number of Respondents Per Year | (F) Technical Hours per Year (D X E) | (G) Clerical Hours per Year (F X 0.1) | (H) Management Hours per Year (F X .05) | (I) Total Labor Costs Per Year | (J) Total Non- Labor Costs Per Year (B x C x E) | (K) Total Number of Responses per Year (C X E) | Footnotes |
|--|--|---|--|--|---|--|---|---|---|---|---|-----------|
| 1. Applications | NA | | | | | | | | | | | |
| 2. Surveys and Studies | NA | | | | | | | | | | | |
| 3. Reporting Requirements | | | | | | | | | | | | |
| A. Read Rule | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| B. Required Activities | | | | | | | | | | | | |
| 1. Mercury testing | 10 | \$6,400 | 1 | 10 | 7 | 70 | 7 | 4 | \$6,615 | \$44,800 | 0 | b |
| 2. Hydrogen fluoride testing | | | | | | | | | | | | c |
| a. Incremental 320 Cost | 0 | \$8,000 | 1 | 0 | 78 | 0 | 0 | 0 | \$0 | \$624,000 | 0 | c |
| b. Oxidation Reactors, Defluorination Units, & Clarifiers | 10 | \$15,000 | 1 | 10 | 8 | 80 | 8 | 4 | \$7,560 | \$120,000 | 0 | c |
| 3. TF testing: Oxidation, Defluorination, & Clarifiers | 10 | \$5,600 | 1 | 10 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | g |
| 4. Performance evaluation | 0 | \$2,000 | 1 | 0 | 23 | 0 | 0 | 0 | \$0 | \$46,000 | 0 | d |
| C. Create Information | Inc. in 3B | | | | | | | | | | | |
| D. Gather Information | Inc. in 3E | | | | | | | | | | | |
| E. Report Preparation | | | | | | | | | | | | |
| 1. Performance test report | 10 | \$0 | 1 | 10 | 8 | 80 | 8 | 4 | \$7,560 | \$0 | 8 | e |
| 2. Develop monitoring plan | 15 | \$0 | 1 | 15 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| 3. Prepare gypsum stack management plan | 20 | \$0 | 1 | 20 | 0 | 0 | 0 | 0 | \$0 | \$0 | 0 | a |
| Reporting Subtotal | | | | | | 230 | 23 | 12 | \$21,735 | \$834,800 | 8 | |
| 4. Recordkeeping Requirements | | | | | | | | | | | | |
| A. Read Instructions | Inc. in 3A | | | | | | | | | | | |
| B. Implements Activities | NA | | | | | | | | | | | |
| C. Develop Record System | NA | | | | | | | | | | | |
| D. Record information | | | | | | | | | | | | |
| 1. Records of Hg testing | 3 | \$0 | 1 | 3 | 7 | 21 | 2 | 1 | \$1,985 | \$0 | 0 | |
| 2. Records of HF testing | 3 | \$0 | 1 | 3 | 8 | 24 | 2 | 1 | \$2,268 | \$0 | 0 | |
| 3. Records of Hg control device | 10 | \$0 | 1 | 10 | 1 | 10 | 1 | 1 | \$945 | \$0 | 0 | f |
| E. Personnel Training | Inc. in 3B | | | | | | | | | | | |
| F. Time for Audits | NA | | | | | | | | | | | |
| Recordkeeping Subtotal | | | | | | 55 | 6 | 3 | \$5,198 | \$0 | 0 | |
| TOTAL | | | | | | 285 | 29 | 14 | \$26,933 | \$834,800 | 8 | |
| | | | | | | Total Hours | Labor | Non-Labor | Total | | | |
| | | | | | | Summary of Respondent Burden | 328 | \$26,933 | \$834,800 | \$861,733 | | |
| | | | | | | Initial Capital and Startup | | \$0 | | | | |
| | | | | | | Annualized Capital/Start-up and O & M | | \$834,800 | | | | |

Footnotes:

- (a) Only applicable to first year.
- (b) Must perform annual Hg testing, plus semi-annual testing on one representative carbon adsorber system (there are six phosphate rock calciners).
- (c) Must perform annual HF testing. For 78 emission points, the incremental cost for using Method 320 versus 13B are included (\$8,000). There are 8 emission points (oxidation reactors, defluorination units, and clarifiers) that are currently not tested, but are applicable as noted in the subpart AA clarifications (they would incur the full Method 320 cost of \$15,000).
- (d) Facilities must follow performance evaluation criteria (calibrations) for control devices. There are 23 process units at the 13 facilities, 12 phosphoric acid units and 11 phosphate fertilizer units.
- (e) Includes additional data submitted for Hg and HF, for emission points not currently tested. The facilities' emission points that currently conduct TF tests are not considered, as they must already report their data.
- (f) One facility will install a carbon adsorption system and must determine the carbon bed life.
- (g) Facilities will perform HF tests instead of TF tests from year 2 forward.

Table 4 - Summary of Annual Respondent Burden and Cost of Recordkeeping and Reporting Requirements for the Phosphoric Acid and Phosphate Fertilizers NESHAP

| Year | Technical Hours | Clerical Hours | Management Hours | Total Labor Hours | Labor Costs | Non-Labor (Annualized Capital/Startup and O&M) Costs | Total Costs |
|---------|---------------------|-----------------|---------------------|-------------------|--------------------|--|-------------|
| 1 | 1,219 | 122 | 61 | 1,402 | \$115,198 | \$90,800 | \$205,998 |
| 2 | 174 | 17 | 9 | 200 | \$16,443 | \$790,000 | \$806,443 |
| 3 | 285 | 29 | 14 | 328 | \$26,933 | \$834,800 | \$861,733 |
| Total | 1,678 | 168 | 84 | 1,930 | \$158,574 | \$1,715,600 | \$1,874,174 |
| Average | 559 | 56 | 28 | 643 | \$52,858 | \$571,867 | \$624,725 |
| | | | | | | | |
| Year | Number of Responses | Reporting Hours | Recordkeeping Hours | Total Hours | Hours per Response | | |
| 1 | 42 | 1,374 | 28 | 1,402 | 33 | | |
| 2 | 7 | 173 | 28 | 200 | 29 | | |
| 3 | 8 | 265 | 63 | 328 | 41 | | |
| Total | 57 | 1,811 | 118 | 1,930 | 34 | | |
| Average | 19 | 604 | 39 | 643 | 34 | | |