

## **APPENDIX L QUESTIONNAIRE RESULTS**

Since results for all of the 66 NOHSM mineral commodities cannot be conveniently displayed in the analysis section of this appendix, the 66 mineral commodities have been grouped under the 6 mineral industries which MSHA uses in their annual injury experience information reports (with the exception of anthracite and bituminous coal which MSHA combines under the heading coal): stone mining, nonmetallic mineral mining, sand and gravel mining, anthracite coal mining, bituminous coal mining, and metallic mineral mining. Table L1 lists the mineral industry followed by the NOHSM mineral commodities which comprise that particular mineral industry. The NOHSM questionnaire results are presented as the percentage of projected workers who worked at facilities with the given attribute. The sum

of the responses may not total 100% since trade secret data is excluded from this report. The sum of the responses may be greater than 100% since the data is rounded off to the nearest whole number. Any responses that are greater than 0 but less than .5% were reported as <.5%. Additional tables of results (Tables L34 and L36) were provided for questions 40 and 41 which provide the minimum, average, and maximum absenteeism rate in days per employee per year and turnover rate percentage per year (these values were not projected, but based only on the data collected at the surveyed mining facilities). Analysis is provided for questions 10 and 11 to provide an example of how to interpret the following tables of projected results for the questions of the NOHSM questionnaire.

## APPENDIX L (CONT.)

**TABLE L1**  
**MINERAL COMMODITIES THAT COMPRISE EACH MINERAL INDUSTRY**

### STONE MINERAL INDUSTRY

Cement  
Granite (Crushed & Broken)  
Granite (Dimension)  
Lime  
Limestone (Crushed & Broken)  
Limestone (Dimension)  
Marble (Crushed & Broken)  
Marble (Dimension)  
Sandstone (Crushed & Broken)  
Sandstone (Dimension)  
Slate (Crushed & Broken)  
Slate (Dimension)  
Stone (Crushed & Broken, NEC)  
Stone (Dimension)  
Traprock (Crushed & Broken)

### METALLIC MINERAL INDUSTRY

Aluminum  
Beryl  
Copper  
Gold  
Iron Ore  
Lead/Zinc  
Manganese  
Mercury  
Metal Ores, NEC  
Molybdenum  
Platinum Group  
Rare Earths  
Silver  
Titanium  
Uranium  
Uranium - Vanadium Ores  
Vanadium  
Zircon

### SAND & GRAVEL MINERAL INDUSTRY

Sand & Gravel

### NONMETALLIC MINERAL INDUSTRY

Aplite  
Asbestos  
Barite  
Boron Minerals  
Clay  
Feldspar  
Fluorspar  
Gemstones  
Gilsonite  
Gypsum  
Kyanite  
Leonardite  
Lithium  
Magnesite  
Mica  
Nonmetallic, Minerals, NEC  
Oil Shale  
Perlite  
Phosphate Rock  
Pigment Minerals  
Potash  
Pumice  
Pyrites  
Salt (Evaporated)  
Salt (Rock)  
Shale (Common)  
Sodium Compounds  
Talc, Soapstone, & Pyrophyllite  
Trona  
Vermiculite

### ANTHRACITE COAL MINERAL INDUSTRY

Anthracite Coal

### BITUMINOUS COAL MINERAL INDUSTRY

Bituminous Coal

**APPENDIX L (CONT.)**

**Question**

7. Approximately how many years has this facility been involved in any mining or milling activity?

— — — Years (If “*unknown*” code “998”)

**TABLE L2  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 7 — YEARS OF MINING OR MILLING ACTIVITY**

| Mineral Industry | YEARS OF MINING OR MILLING ACTIVITY |       |       |       |       |        |      | UNKNOWN |
|------------------|-------------------------------------|-------|-------|-------|-------|--------|------|---------|
|                  | 0-10                                | 11-20 | 21-30 | 31-40 | 41-50 | 51-100 | >100 |         |
| Stone            | 14%                                 | 9%    | 18%   | 13%   | 5%    | 31%    | 6%   | 2%      |
| Nonmetallic      | 8%                                  | 16%   | 21%   | 20%   | 8%    | 24%    | <.5% | <.5%    |
| Metallic         | 15%                                 | 22%   | 31%   | 19%   | 1%    | 5%     | 7%   | 0%      |
| Sand & Gravel    | 45%                                 | 13%   | 12%   | 15%   | 3%    | 12%    | 0%   | 0%      |
| Anthracite       | 32%                                 | 15%   | 11%   | 13%   | 5%    | 11%    | 14%  | 0%      |
| Bituminous       | 33%                                 | 33%   | 18%   | 4%    | 4%    | 7%     | 0%   | 0%      |
| All Mining       | 25%                                 | 23%   | 20%   | 10%   | 5%    | 14%    | 2%   | 1%      |

## APPENDIX L (CONT.)

### Question

10. Has this facility any formal agreement with the employees concerning occupational health?

- 1 Yes
- 2 No

### Analysis

As can be seen from Table L3, 46 percent of the workers across all mineral industries were covered by a formal agreement concerning occupational health. The metallic and bituminous coal mineral industries had the highest percentages of workers which were covered by a formal agreement concerning occupational health (68% and 56%); while the sand & gravel and stone mining mineral industries had the lowest percentages (34% and 20%).

**TABLE L3**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 10 — FORMAL OCCUPATIONAL HEALTH AGREEMENTS**

| <b>Mineral Industry</b> | <b>Yes</b> | <b>No</b> |
|-------------------------|------------|-----------|
| Stone                   | 20%        | 80%       |
| Nonmetallic             | 40%        | 59%       |
| Metallic                | 68%        | 30%       |
| Sand & Gravel           | 34%        | 66%       |
| Anthracite              | 37%        | 63%       |
| Bituminous              | 56%        | 44%       |
| All Mining              | 46%        | 53%       |

**APPENDIX L (CONT.)**

**MEDICAL SERVICES**

**Question**

11. Is there a formally established health unit at this facility?

- 1 Yes, physician in charge
- 2 Yes, registered nurse in charge
- 3 Yes, licensed practical nurse in charge
- 4 Yes, other in charge
- 5 No

**Analysis**

Only 16% of the workers across all mineral industries were employed by facilities which had formally established health units, as shown in Table L4. The metallic and nonmetallic mineral industries had the highest percentages of workers which were employed by facilities which had formally established health units (34% and 27%). The metallic minerals industry had the highest percentage of workers which worked for facilities that had formally established health units which were supervised by a physician (17%). The nonmetallic minerals industry had the highest percentage of its workers which were employed by facilities that had health units which were managed by RNs (14%). The anthracite coal and sand & gravel mineral industries had no workers which were employed by facilities that had formally established health units.

**TABLE L4  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 11 — FORMALLY ESTABLISHED HEALTH UNITS**

| <b>Mineral Industry</b> | <b>Physician</b> | <b>R N</b> | <b>LPN</b> | <b>Other</b> | <b>None</b> |
|-------------------------|------------------|------------|------------|--------------|-------------|
| Stone                   | 0%               | 2%         | 0%         | 4%           | 93%         |
| Nonmetallic             | 7%               | 14%        | 2%         | 4%           | 70%         |
| Metallic                | 17%              | 5%         | 0%         | 12%          | 63%         |
| Sand & Gravel           | 0%               | 0%         | 0%         | 0%           | 100%        |
| Anthracite              | 0%               | 0%         | 0%         | 0%           | 100%        |
| Bituminous              | 0%               | 7%         | 0%         | 10%          | 83%         |
| All Mining              | 3%               | 6%         | <.5%       | 7%           | 83%         |

**APPENDIX L (CONT.)**

**Question**

12. Do you have on your payroll one or more on-site physicians to give your employees medical care?

- 1 Yes, full-time
- 2 Yes, part-time
- 3 No

**TABLE L5  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 12 — MEDICAL CARE BY ON-SITE PHYSICIANS**

| <b>Mineral Industry</b> | <b>Full-time Physician</b> | <b>Part-time Physician</b> | <b>No Physician</b> |
|-------------------------|----------------------------|----------------------------|---------------------|
| Stone                   | 0%                         | 2%                         | 96%                 |
| Nonmetallic             | 6%                         | 3%                         | 90%                 |
| Metallic                | 7%                         | 7%                         | 84%                 |
| Sand & Gravel           | 0%                         | 0%                         | 100%                |
| Anthracite              | 0%                         | 0%                         | 100%                |
| Bituminous              | 0%                         | 0%                         | 100%                |
| All Mining              | 1%                         | 2%                         | 97%                 |

**APPENDIX L (CONT.)**

**Question**

13. Do you have a formal arrangement with any outside source (physicians or clinics) to give your employees access to the care of a physician for health-related problems (as opposed to care for traumatic injury)?

- 1 Yes, physician will travel to this facility on call
- 2 Yes, at clinic (not at this facility)
- 3 Yes, physician is based at this facility either full or part-time
- 4 No

**TABLE L6  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 13 — FORMAL ARRANGEMENTS WITH OUTSIDE SOURCE FOR  
PHYSICIAN'S MEDICAL CARE**

| <b>Mineral Industry</b> | <b>Physician on Call</b> | <b>Clinic</b> | <b>Facility Physician</b> | <b>None</b> |
|-------------------------|--------------------------|---------------|---------------------------|-------------|
| Stone                   | 2%                       | 46%           | 2%                        | 49%         |
| Nonmetallic             | 6%                       | 62%           | 6%                        | 26%         |
| Metallic                | 4%                       | 67%           | 16%                       | 12%         |
| Sand & Gravel           | 0%                       | 66%           | 0%                        | 35%         |
| Anthracite              | 0%                       | 66%           | 0%                        | 34%         |
| Bituminous              | 11%                      | 55%           | 0%                        | 33%         |
| All Mining              | 7%                       | 56%           | 3%                        | 33%         |

**APPENDIX L (CONT.)**

**Question**

14. Estimate the average number of physician hours that are devoted to the care of employees at your facility per week.

\_\_ \_\_ \_\_ hours per week (If "unknown" code "998")

**TABLE L7  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 14 — AVERAGE PHYSICIAN HOURS FOR EMPLOYEES**

| <b>AVERAGE PHYSICIAN HOURS FOR EMPLOYEES</b> |            |             |                |                |
|--|------------|-------------|----------------|----------------|
| <b>Mineral Industry</b>                      | <b>0-4</b> | <b>5-10</b> | <b>&gt;=11</b> | <b>UNKNOWN</b> |
| Stone  | 59%        | 3%          | 0%             | 37%            |
| Nonmetallic                                  | 37%        | 4%          | 6%             | 53%            |
| Metallic                                     | 14%        | 8%          | 7%             | 69%            |
| Sand & Gravel                                | 39%        | 0%          | 0%             | 61%            |
| Anthracite                                   | 24%        | 0%          | 0%             | 76%            |
| Bituminous                                   | 36%        | 4%          | 5%             | 55%            |
| All Mining                                   | 38%        | 4%          | 4%             | 53%            |



**APPENDIX L (CONT.)**

**Question**

15. Does this facility have one or more nurses on the payroll to provide care for employees?

- 1 Yes
- 2 No (Code a "0" in the blank for N/A in question 16)

**TABLE L8**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 15 — MEDICAL CARE FROM PAYROLL NURSES**

| <b>Mineral Industry</b> | <b>Yes</b> | <b>No</b> |
|-------------------------|------------|-----------|
| Stone                   | 2%         | 97%       |
| Nonmetallic             | 20%        | 79%       |
| Metallic                | 31%        | 67%       |
| Sand & Gravel           | 0%         | 100%      |
| Anthracite              | 0%         | 100%      |
| Bituminous              | 8%         | 92%       |
| All Mining              | 10%        | 89%       |

**APPENDIX L (CONT.)**

**Question**

16. How many registered nurses and licensed practical nurses are on the payroll at this facility, and who provide direct care for your employees?

N/A \_\_\_\_\_

RN \_\_\_\_\_  
 LPN \_\_\_\_\_

**TABLE L9  
 PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
 QUESTION 16 — NUMBER OF NURSES AT FACILITY**

| Mineral Industry |     | NUMBER OF NURSES AT FACILITY |      |    | NO NURSE |
|------------------|-----|------------------------------|------|----|----------|
|                  |     | 1                            | 2    | 3  |          |
| Stone            | RN  | 1%                           | 1%   | 0% | 97%      |
|                  | LPN | 0%                           | 0%   | 0% | 99%      |
| Nonmetallic      | RN  | 15%                          | 3%   | 0% | 82%      |
|                  | LPN | 5%                           | 0%   | 0% | 94%      |
| Metallic         | RN  | 17%                          | 14%  | 0% | 67%      |
|                  | LPN | 0%                           | 1%   | 7% | 90%      |
| Sand & Gravel    | RN  | 0%                           | 0%   | 0% | 100%     |
|                  | LPN | 0%                           | 0%   | 0% | 100%     |
| Anthracite       | RN  | 0%                           | 0%   | 0% | 100%     |
|                  | LPN | 0%                           | 0%   | 0% | 100%     |
| Bituminous       | RN  | 4%                           | 0%   | 4% | 92%      |
|                  | LPN | 4%                           | 0%   | 0% | 96%      |
| All Mining       | RN  | 6%                           | 2%   | 2% | 89%      |
|                  | LPN | 3%                           | <.5% | 1% | 96%      |

**APPENDIX L (CONT.)**

**Question**

17. Estimate the average number of nursing hours that are devoted to the employees of your facility per week.

\_\_ \_\_ \_\_ hours (If "unknown" code "998")

**TABLE L10  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 17 — AVERAGE NURSING HOURS FOR EMPLOYEES**

| <b>AVERAGE NURSING HOURS FOR EMPLOYEES</b> |            |             |                |                |
|--|------------|-------------|----------------|----------------|
| <b>Mineral Industry</b>                    | <b>0-4</b> | <b>5-10</b> | <b>&gt;=11</b> | <b>UNKNOWN</b> |
| Stone                                      | 68%        | 2%          | 1%             | 28%            |
| Nonmetallic                                | 33%        | 2%          | 19%            | 45%            |
| Metallic                                   | 19%        | 1%          | 31%            | 47%            |
| Sand & Gravel                              | 47%        | 0%          | 0%             | 53%            |
| Anthracite                                 | 48%        | 0%          | 0%             | 52%            |
| Bituminous                                 | 26%        | 0%          | 11%            | 63%            |
| All Mining                                 | 36%        | 1%          | 12%            | 51%            |

**Question**

18. Do you provide the following examinations or tests to all or to selected groups of employees on a periodic basis?

|                           | No | Yes,<br>All | Yes,<br>All<br>Exec. &<br>Mgmt<br>Only | Yes,<br>All<br>Production<br>Workers<br>Only | Yes,<br>for<br>Selected<br>Mgmt and/or<br>Production<br>Workers |
|---------------------------|----|-------------|--|--|---|
| Ophthalmology             | 1  | 2           | 3                                      | 4  | 5   |
| Audiometric               | 1  | 2           | 3                                      | 4  | 5   |
| Blood tests               | 1  | 2           | 3                                      | 4  | 5   |
| Urine tests               | 1  | 2           | 3                                      | 4  | 5   |
| Pulmonary function        | 1  | 2           | 3                                      | 4  | 5   |
| Chest X-rays              | 1  | 2           | 3                                      | 4  | 5   |
| Allergy/Sensitization     | 1  | 2           | 3                                      | 4  | 5   |
| Immunizations (flu, etc.) | 1  | 2           | 3                                      | 4  | 5   |

**APPENDIX L (CONT.)**

**TABLE L11  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 18 — PROVISION OF MEDICAL TESTS ON A PERIODIC BASIS**

| Min. Industry | YES FOR ALL OR SELECTED GROUPS OF EMPLOYEES |       |       |       |       |        |         |        |
|---------------|---|-------|-------|-------|-------|--------|---------|--------|
|               | Ophth.                                      | Audio | Blood | Urine | Pulm. | X-rays | Allergy | Immun. |
| Stone         | 24%   | 44%   | 18%   | 21%   | 22%   | 24%    | 1%      | 9%     |
| Nonmetallic   | 46%   | 67%   | 54%   | 56%   | 57%   | 66%    | 10%     | 23%    |
| Metallic      | 67%   | 87%   | 82%   | 83%   | 74%   | 74%    | 5%      | 24%    |
| Sand & Gravel | 0%  | 32%   | 5%    | 18%   | 9%    | 7%     | 0%      | 0%     |
| Anthracite    | 4%  | 17%   | 17%   | 17%   | 17%   | 33%    | 13%     | 10%    |
| Bituminous    | 39%   | 49%   | 41%   | 41%   | 41%   | 82%    | 7%      | 13%    |
| All Mining    | 37%   | 53%   | 40%   | 42%   | 40%   | 62%    | 6%      | 14%    |

NOTE: The abbreviations listed in the table headings stand for: Min. Industry - Mineral Industry; Ophth. - Ophthalmology; Audio - Audiometric; Pulm. - Pulmonary Function; X-rays - Chest X-rays; Allergy - Allergy / Sensitization; and Immun. - Immunizations (flu, etc.).

**Question**

19. Before new employees are hired or placed, are they required to take a medical examination?

1      2      3      4      5

**TABLE L12  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 19 — NEW EMPLOYEE MEDICAL EXAM REQUIREMENTS**

| Mineral Industry | Yes, for Selected Mgmt and or Production Workers |          |                            |                                  |  |
|------------------|--|----------|----------------------------|----------------------------------|--|
|                  | No   | Yes, All | Yes, All Exec. & Mgmt Only | Yes, All Production Workers Only | Yes, for Selected Mgmt and or Production Workers |
| Stone            | 27%  | 64%      | 0%                         | 1%                               | 7%   |
| Nonmetallic      | 8%   | 86%      | 0%                         | 3%                               | 1%   |
| Metallic         | 2%   | 96%      | 0%                         | 0%                               | <.5%   |
| Sand & Gravel    | 57%  | 43%      | 0%                         | 0%                               | 0%   |
| Anthracite       | 66%  | 30%      | 0%                         | 4%                               | 0%   |
| Bituminous       | 4%   | 96%      | 0%                         | 0%                               | 0%   |
| All Mining       | 13%  | 84%      | 0%                         | 1%                               | 2%   |

**APPENDIX L (CONT.)**

**Question**

20. Do you record health information about a new employee on some regular form?

1      2      3      4      5

**TABLE L13  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 20 — NEW EMPLOYEE HEALTH DATA**

| <b>Mineral Industry</b> | <b>No</b> | <b>Yes, All</b> | <b>Yes, All Exec. &amp; Mgmt Only</b> | <b>Yes, All Production Workers Only</b> | <b>Yes, for Selected Mgmt and or Production Workers</b> |
|-------------------------|-----------|-----------------|---------------------------------------|---|---|
| Stone                   | 16%       | 80%             | 0%                                    | 2%                                      | 2%  |
| Nonmetallic             | 7%        | 88%             | 0%                                    | 3%                                      | <5%   |
| Metallic                | 14%       | 84%             | 0%                                    | 0%                                      | 0%  |
| Sand & Gravel           | 57%       | 43%             | 0%                                    | 0%                                      | 0%  |
| Anthracite              | 43%       | 48%             | 0%                                    | 9%                                      | 0%  |
| Bituminous              | 31%       | 69%             | 0%                                    | 0%                                      | 0%  |
| All Mining              | 25%       | 73%             | 0%                                    | 1%                                      | <5%   |

21. Do you require medical examinations of your employees who return to work after an illness?

1      2      3      4      5

**TABLE L14  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 21 — RETURN TO WORK MEDICAL EXAM REQUIREMENTS**

| <b>Mineral Industry</b> | <b>No</b> | <b>Yes, All</b> | <b>Yes, All Exec. &amp; Mgmt Only</b> | <b>Yes, All Production Workers Only</b> | <b>Yes, for Selected Mgmt and or Production Workers</b> |
|-------------------------|-----------|-----------------|---------------------------------------|---|---|
| Stone                   | 23%       | 44%             | 0%                                    | 1%                                      | 31%   |
| Nonmetallic             | 17%       | 40%             | 0%                                    | 5%                                      | 36%   |
| Metallic                | 6%        | 50%             | 0%                                    | 2%                                      | 41%   |
| Sand & Gravel           | 25%       | 41%             | 0%                                    | 0%                                      | 34%   |
| Anthracite              | 40%       | 37%             | 0%                                    | 20%                                     | 4%  |
| Bituminous              | 19%       | 56%             | 0%                                    | 4%                                      | 22%   |
| All Mining              | 19%       | 50%             | 0%                                    | 3%                                      | 28%   |

**APPENDIX L (CONT.)**

**Question**

22. Do you require medical examinations of your employees when their employment is terminated? (Exit examination)

1      2      3      4      5

**TABLE L15  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 22 — TERMINATED EMPLOYEE MEDICAL EXAM REQUIREMENTS**

| <b>Mineral Industry</b> | <b>No</b> | <b>Yes, All</b> | <b>Yes, All Exec. &amp; Mgmt Only</b> | <b>Yes, All Production Workers Only</b> | <b>Yes, for Selected Mgmt and or Production Workers</b> |
|-------------------------|-----------|-----------------|---------------------------------------|---|---|
| Stone                   | 97%       | 1%              | 0%                                    | 0%                                      | 1%  |
| Nonmetallic             | 95%       | 4%              | 0%                                    | 0%                                      | <5%   |
| Metallic                | 91%       | 6%              | 0%                                    | 0%                                      | 1%  |
| Sand & Gravel           | 96%       | 4%              | 0%                                    | 0%                                      | 0%  |
| Anthracite              | 100%      | 0%              | 0%                                    | 0%                                      | 0%  |
| Bituminous              | 100%      | 0%              | 0%                                    | 0%                                      | 0%  |
| All Mining              | 98%       | 1%              | 0%                                    | 0%                                      | <5%   |

**APPENDIX L (CONT.)**

**Question**

23. How long are medical records and other health information records retained?

— — — Years (If "forever" code "999")  
(If "unknown" code "998")

**TABLE L16**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 23 — RETENTION OF HEALTH & MEDICAL RECORDS**

| Mineral Industry | <b>#YEARS RECORDS RETAINED</b> |      |      |         |         |
|------------------|--------------------------------|------|------|---------|---------|
|                  | 0-4                            | 5-10 | >=11 | UNKNOWN | FOREVER |
| Stone            | 10%                            | 10%  | 3%   | 24%     | 53%     |
| Nonmetallic      | 5%                             | 3%   | 3%   | 11%     | 76%     |
| Metallic         | 1%                             | 2%   | 19%  | 24%     | 52%     |
| Sand & Gravel    | 45%                            | 4%   | 4%   | 25%     | 23%     |
| Anthracite       | 19%                            | 0%   | 0%   | 32%     | 48%     |
| Bituminous       | 9%                             | 3%   | 0%   | 22%     | 65%     |
| All Mining       | 10%                            | 5%   | 3%   | 22%     | 60%     |

**INDUSTRIAL HYGIENE PRACTICES**

**Question**

24. Has your facility received industrial hygiene services on a consulting basis during the past 12 months?

- 1 Yes, from government sources
- 2 Yes, from non-government sources
- 3 Yes, from both government and non-government sources
- 4 No

**TABLE L17**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 24 — INDUSTRIAL HYGIENE SERVICES ON A CONSULTING BASIS**

| Mineral Industry | Government | Non-government | Both | None |
|------------------|------------|----------------|------|------|
| Stone            | 5%         | 17%            | 3%   | 74%  |
| Nonmetallic      | 4%         | 35%            | 11%  | 49%  |
| Metallic         | 5%         | 49%            | 8%   | 36%  |
| Sand & Gravel    | 12%        | 10%            | 0%   | 78%  |
| Anthracite       | 4%         | 21%            | 0%   | 76%  |
| Bituminous       | 0%         | 14%            | 5%   | 80%  |
| All Mining       | 3%         | 21%            | 5%   | 70%  |

**APPENDIX L (CONT.)**

**Question**

25. Do you employ full-time individuals at this facility whose major responsibilities are in the area of **prevention** of illnesses?

- 1 Yes, but not a certified industrial hygienist.
- 2 Yes, a certified industrial hygienist.
- 3 Yes, both certified and non-certified industrial hygienists.
- 4 No (Code a "0" in the blank for N/A in question 26)

**TABLE L18  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 25 — FULL-TIME INDUSTRIAL HYGIENISTS**

| <b>Mineral Industry</b> | <b>Non-certified I.H.</b> | <b>Certified I.H.</b> | <b>Both</b> | <b>None</b> |
|-------------------------|---------------------------|-----------------------|-------------|-------------|
| Stone                   | 3%                        | 0%                    | 0%          | 96%         |
| Nonmetallic             | 17%                       | 1%                    | 0%          | 81%         |
| Metallic                | 31%                       | 3%                    | 3%          | 62%         |
| Sand & Gravel           | 0%                        | 0%                    | 0%          | 100%        |
| Anthracite              | 0%                        | 0%                    | 0%          | 100%        |
| Bituminous              | 16%                       | 0%                    | 0%          | 84%         |
| All Mining              | 14%                       | <.5%                  | <.5%        | 85%         |



**APPENDIX L (CONT.)**

**Question**

26. How many full-time occupational health specialists are employed at this facility?

\_\_\_ \_\_\_ Total

\_\_\_ N/A

For each of those individuals, please write in the appropriate activity number from the activity clusters listed below:

|                    | <b>CLUSTER NO.</b>   |
|--------------------|--|
| Individual #1 ___  | A: Administers (directs, manages) plans and develops programs, advises top level management.       |
| Individual #2 ___  |  |
| Individual #3 ___  | B: Inspects work place to identify hazards, investigates to determine the cause of illnesses.      |
| Individual #4 ___  |  |
| Individual #5 ___  | C: Analyzes plans or specs. to identify hazards, develops operating procedures to control hazards. |
| Individual #6 ___  |  |
| Individual #7 ___  | D: Provides education and training.  |
| Individual #8 ___  | E: Performs and analyzes tests to monitor for the presence of dusts, gases, etc.                   |
| Individual #9 ___  |  |
| Individual #10 ___ | F: Performs engineering design to control hazards.   |
| Individual #11 ___ |  |
| Individual #12 ___ |  |

**TABLE L19  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 26 — NUMBER OF FULL-TIME INDUSTRIAL HYGIENISTS**

| <b>Mineral Industry</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>NO I.H.</b> |
|-------------------------|----------|----------|----------|----------|----------------|
| Stone                   | 2%       | 0%       | 1%       | 0%       | 96%            |
| Nonmetallic             | 12%      | 5%       | 2%       | 0%       | 81%            |
| Metallic                | 13%      | 13%      | 9%       | 1%       | 62%            |
| Sand & Gravel           | 0%       | 0%       | 0%       | 0%       | 100%           |
| Anthracite              | 0%       | 0%       | 0%       | 0%       | 100%           |
| Bituminous              | 13%      | 4%       | 0%       | 0%       | 84%            |
| All Mining              | 10%      | 4%       | 1%       | <5%      | 84%            |

**APPENDIX L (CONT.)**

**Question**

27. Do you have a program under which you regularly or periodically monitor the presence of physical agents such as heat, vibration, radiation, noise, or other types of physical agents?

1 Yes (Circle "1" or "2" for each physical agent listed below:)

|              | Yes | No |
|--------------|-----|----|
| 1. Heat      | 1   | 2  |
| 2. Vibration | 1   | 2  |
| 3. Radiation | 1   | 2  |
| 4. Noise     | 1   | 2  |
| 5. Other     | 1   | 2  |

2 No (Code a "0" in the blank for N/A in question 28)

**TABLE L20  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 27 — MONITORING FOR PHYSICAL AGENTS**

| <b>Mineral Industry</b> | <b>Heat</b> | <b>Vibration</b> | <b>Radiation</b> | <b>Noise</b> | <b>Other</b> |
|-------------------------|-------------|------------------|------------------|--------------|--------------|
| Stone                   | 5%          | 4%               | 18%              | 37%          | 0%           |
| Nonmetallic             | 12%         | 6%               | 38%              | 78%          | 5%           |
| Metallic                | 26%         | 12%              | 81%              | 91%          | 8%           |
| Sand & Gravel           | 0%          | 0%               | 4%               | 29%          | 0%           |
| Anthracite              | 0%          | 2%               | 9%               | 100%         | 0%           |
| Bituminous              | 1%          | 0%               | 4%               | 100%         | 5%           |
| All Mining              | 6%          | 3%               | 20%              | 78%          | 4%           |

**APPENDIX L (CONT.)**

**Question**

28. How long do you retain the records of the monitoring program?

\_\_\_ Years (If "forever" code "99")  
 (If "unknown" code "98")  
 \_\_\_ N/A

**TABLE L21  
 PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
 QUESTION 28 — RETENTION OF PHYSICAL AGENT MONITORING RECORDS**

| Mineral Industry | #YEARS RECORDS RETAINED |      |      |         |         |     |
|------------------|-------------------------|------|------|---------|---------|-----|
|                  | 0-4                     | 5-10 | >=11 | UNKNOWN | FOREVER | N/A |
| Stone            | 54%                     | 2%   | 1%   | 19%     | 24%     | 52% |
| Nonmetallic      | 23%                     | <5%  | 1%   | 12%     | 61%     | 20% |
| Metallic         | 4%                      | 2%   | 1%   | 8%      | 83%     | 3%  |
| Sand & Gravel    | 76%                     | 0%   | 4%   | 5%      | 15%     | 71% |
| Anthracite       | 15%                     | 2%   | 0%   | 32%     | 52%     | 0%  |
| Bituminous       | 20%                     | 12%  | 0%   | 26%     | 42%     | 0%  |
| All Mining       | 29%                     | 7%   | 1%   | 19%     | 43%     | 18% |

**Question**

29. Do you have a program under which you regularly or periodically monitor the health-related presence of fumes, gases, mists, dusts, or vapors?

1 Yes, we have a monitoring program (circle 1 or 2 for each agent listed below)

|           | Yes | No |
|-----------|-----|----|
| 1. Fumes  | 1   | 2  |
| 2. Gases  | 1   | 2  |
| 3. Mists  | 1   | 2  |
| 4. Dusts  | 1   | 2  |
| 5. Vapors | 1   | 2  |

2 No (Code a "0" in the blank for N/A in questions 30, 31, and 32)

**TABLE L22  
 PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
 QUESTION 29 — AIR MONITORING: AGENT CATEGORIES**

| Mineral Industry | Fumes | Gases | Mists | Dust | Vapors |
|------------------|-------|-------|-------|------|--------|
| Stone            | 7%    | 11%   | 2%    | 29%  | 2%     |
| Nonmetallic      | 33%   | 53%   | 15%   | 67%  | 28%    |
| Metallic         | 78%   | 83%   | 52%   | 82%  | 69%    |
| Sand & Gravel    | 4%    | 4%    | 4%    | 21%  | 4%     |
| Anthracite       | 0%    | 4%    | 0%    | 70%  | 0%     |
| Bituminous       | 0%    | 36%   | 4%    | 82%  | 5%     |
| All Mining       | 14%   | 36%   | 10%   | 65%  | 15%    |

**APPENDIX L (CONT.)**

**Question**

30. How is this monitoring conducted?

N/A \_\_\_\_\_

- 1 Sample collection with laboratory analysis (Code a "0" in the blank for N/A in question 31)
- 2 Direct-reading instruments
- 3 Both

**TABLE L23  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 30 — AIR MONITORING METHODS**

| <b>Mineral Industry</b> | <b>1. Sample<br/>Collection<br/>Lab/Analysis</b> | <b>2. Direct Read<br/>Instruments<br/>Only</b> | <b>3. Both 1&amp;2</b> | <b>4. N/A</b> |
|-------------------------|--|--|------------------------|---------------|
| Stone                   | 16%  | 6%   | 11%                    | 66%           |
| Nonmetallic             | 16%  | 6%   | 51%                    | 26%           |
| Metallic                | 3%   | 6%   | 77%                    | 12%           |
| Sand & Gravel           | 11%  | 0%   | 10%                    | 79%           |
| Anthracite              | 64%  | 2%   | 5%                     | 30%           |
| Bituminous              | 42%  | 5%   | 35%                    | 18%           |
| All Mining              | 27%  | 5%   | 35%                    | 32%           |

NOTE: This question pertains to Question 29 (Table L22).

**APPENDIX L (CONT.)**

**Question**

31. Which types of direct-reading instruments are used in the monitoring program? Circle "1" or "2" for each type listed below:

|                                    |     |    |
|------------------------------------|-----|----|
| N/A _____                          | Yes | No |
| 1. Direct mass measurement tests   | 1   | 2  |
| 2. Fibrous aerosol monitors        | 1   | 2  |
| 3. Detector tubes                  | 1   | 2  |
| 4. Infrared (I.R.) gas monitors    | 1   | 2  |
| 5. Ultraviolet (U.V.) gas monitors | 1   | 2  |
| 6. Gas chromatograph monitors      | 1   | 2  |
| 7. Electrochemical monitors        | 1   | 2  |
| 8. Other "wet" chemical methods    | 1   | 2  |

**TABLE L24  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 31 — AIR MONITORING: DIRECT READING INSTRUMENTS**

| Mineral Industry | 1. Direct Mass Measurement | 2. Fibrous Aerosol Monitors | 3. Detector Tubes | 4. Infrared Gas Monitors |
|------------------|----------------------------|-----------------------------|-------------------|--------------------------|
| Stone            | 6%                         | 0%                          | 12%               | 0%                       |
| Nonmetallic      | 32%                        | 3%                          | 51%               | 2%                       |
| Metallic         | 49%                        | 12%                         | 81%               | 2%                       |
| Sand & Gravel    | 2%                         | 0%                          | 10%               | 0%                       |
| Anthracite       | 3%                         | 0%                          | 4%                | 4%                       |
| Bituminous       | 31%                        | 0%                          | 38%               | 0%                       |
| All Mining       | 26%                        | 2%                          | 37%               | 1%                       |

NOTE: This question pertains to Question 30 (Table L23).

**TABLE L24 (Continued)  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 31 — AIR MONITORING: DIRECT READING INSTRUMENTS**

| Mineral Industry | 5. Ultra-Violet Gas Monitors | 6. Gas Chromatograph Monitors | 7. Electro-Chemical Monitors | 8. Other "Wet" Chemical Methods |
|------------------|------------------------------|-------------------------------|------------------------------|---------------------------------|
| Stone            | 0%                           | 2%                            | 0%                           | 0%                              |
| Nonmetallic      | 3%                           | 2%                            | 16%                          | 10%                             |
| Metallic         | 2%                           | 2%                            | 38%                          | 19%                             |
| Sand & Gravel    | 0%                           | 0%                            | 0%                           | 0%                              |
| Anthracite       | 0%                           | 0%                            | 0%                           | 0%                              |
| Bituminous       | 0%                           | 0%                            | 5%                           | 0%                              |
| All Mining       | 1%                           | 1%                            | 9%                           | 3%                              |

NOTE: This question pertains to Question 30 (Table L23).

**APPENDIX L (CONT.)**

**Question**

32. How long do you retain the records of the monitoring program?

NOTE: DO NOT ASK THIS QUESTION IN COAL MINES.

N/A \_\_\_\_\_

\_\_\_ Years (If "forever" code "99")  
 (If "unknown" code "98")

**TABLE L25  
 PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
 QUESTION 32 — RETENTION OF MONITORING RECORDS FOR:  
 FUMES, GASES, MISTS, DUSTS, AND VAPORS**

| Mineral Industry | #YEARS RECORDS RETAINED |      |      |         |         |     |
|------------------|-------------------------|------|------|---------|---------|-----|
|                  | 0-4                     | 5-10 | >=11 | UNKNOWN | FOREVER | N/A |
| Stone            | 70%                     | 2%   | 1%   | 10%     | 15%     | 66% |
| Nonmetallic      | 30%                     | <.5% | 2%   | 15%     | 52%     | 26% |
| Metallic         | 16%                     | 2%   | 1%   | 8%      | 72%     | 12% |
| Sand & Gravel    | 81%                     | 0%   | 4%   | 9%      | 6%      | 79% |
| Anthracite       | 15%                     | 2%   | 0%   | 6%      | 77%     | 0%  |
| Bituminous       | 6%                      | 0%   | 0%   | 0%      | 94%     | 0%  |
| All Mining       | 28%                     | 1%   | 1%   | 5%      | 64%     | 23% |

**APPENDIX L (CONT.)**

**Question**

33. Are there areas in this facility in which personal protective health devices or equipment are required or recommended?

- 1 Yes, required
- 2 Yes, recommended
- 3 Yes, both
- 4 No (Code a "0" in the blank for N/A in questions 34, 35, 36, and 37)

**TABLE L26  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 33 — PERSONAL PROTECTIVE HEALTH EQUIPMENT REQUIREMENTS**

| <b>Mineral Industry</b> | <b>Required</b> | <b>Recommended</b> | <b>Both</b> | <b>Not</b> |
|-------------------------|-----------------|--------------------|-------------|------------|
| Stone                   | 19%             | 11%                | 68%         | 1%         |
| Nonmetallic             | 25%             | 12%                | 59%         | 2%         |
| Metallic                | 16%             | <.5%               | 82%         | <.5%       |
| Sand & Gravel           | 29%             | 12%                | 40%         | 19%        |
| Anthracite              | 20%             | 27%                | 50%         | 3%         |
| Bituminous              | 5%              | 15%                | 75%         | 5%         |
| All Mining              | 13%             | 12%                | 70%         | 4%         |

**Question**

34. Who has been designated to see to it that personal protective health devices and equipment are serviced and maintained?

N/A \_\_\_\_\_

- 1 individual employees
- 2 employer representative
- 3 both
- 4 no one
- 5 other, specify \_\_\_\_\_

**TABLE L27  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 34 — PERSONAL PROTECTIVE HEALTH EQUIPMENT RESPONSIBILITY**

| <b>Mineral Industry</b> | <b>Employees</b> | <b>Employer</b> | <b>Both</b> | <b>No One</b> | <b>Other</b> | <b>N/A</b> |
|-------------------------|------------------|-----------------|-------------|---------------|--------------|------------|
| Stone                   | 21%              | 17%             | 46%         | 13%           | 1%           | 1%         |
| Nonmetallic             | 10%              | 15%             | 61%         | 5%            | 6%           | 2%         |
| Metallic                | 3%               | 19%             | 75%         | 1%            | 1%           | <.5%       |
| Sand & Gravel           | 9%               | 24%             | 34%         | 14%           | 0%           | 19%        |
| Anthracite              | 13%              | 37%             | 29%         | 18%           | 0%           | 3%         |
| Bituminous              | 20%              | 21%             | 44%         | 9%            | 0%           | 5%         |
| All Mining              | 16%              | 20%             | 49%         | 9%            | 1%           | 4%         |

**APPENDIX L (CONT.)**

**Question**

35. In those instances where employees refuse to wear protective health devices or fail to wear them properly, are corrective measures taken?

N/A \_\_\_\_\_

- 1 Yes
- 2 No (Code a "0" in the blank for N/A in Questions 36 and 37)

**TABLE L28  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 35 — CORRECTIVE MEASURES**

| <b>Mineral Industry</b> | <b>N/A</b> | <b>Yes</b> | <b>No</b> |
|-------------------------|------------|------------|-----------|
| Stone                   | 1%         | 85%        | 13%       |
| Nonmetallic             | 2%         | 83%        | 13%       |
| Metallic                | <.5%       | 95%        | 3%        |
| Sand & Gravel           | 19%        | 69%        | 12%       |
| Anthracite              | 3%         | 63%        | 34%       |
| Bituminous              | 5%         | 62%        | 33%       |
| All Mining              | 4%         | 73%        | 22%       |



**APPENDIX L (CONT.)**

**Question**

36. Do those corrective measures involve economic penalties?

N/A \_\_\_\_\_

- 1 Yes
- 2 No (Code a "0" in the blank for N/A in Question 37)

**TABLE L29  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 36 — ECONOMIC PENALTIES**

| <b>Mineral Industry</b> | <b>N/A</b> | <b>Yes</b> | <b>No</b> |
|-------------------------|------------|------------|-----------|
| Stone                   | 14%        | 79%        | 6%        |
| Nonmetallic             | 16%        | 73%        | 10%       |
| Metallic                | 3%         | 94%        | 1%        |
| Sand & Gravel           | 31%        | 65%        | 4%        |
| Anthracite              | 37%        | 63%        | 0%        |
| Bituminous              | 38%        | 55%        | 7%        |
| All Mining              | 26%        | 67%        | 6%        |

**APPENDIX L (CONT.)**

**Question**

37. Have any economic penalties been assessed in the past 12 months?

N/A \_\_\_\_\_

- 1 Yes
- 2 No, we know of no instances where violations of company policy have occurred within the last 12 months.
- 3 No, although we know that there was at least one violation of company policy within the last 12 months.

**TABLE L30  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 37 — ECONOMIC PENALTY ASSESSMENT**

| <b>Mineral Industry</b> | <b>N/A</b> | <b>Yes</b> | <b>No &amp; no violations known</b> | <b>No &amp; at least one violation</b> |
|-------------------------|------------|------------|-------------------------------------|--|
| Stone                   | 20%        | 1%         | 54%                                 | 24%                                    |
| Nonmetallic             | 26%        | 10%        | 41%                                 | 22%                                    |
| Metallic                | 4%         | 19%        | 38%                                 | 37%                                    |
| Sand & Gravel           | 35%        | 4%         | 39%                                 | 22%                                    |
| Anthracite              | 37%        | 2%         | 57%                                 | 4%                                     |
| Bituminous              | 45%        | 0%         | 35%                                 | 20%                                    |
| All Mining              | 32%        | 4%         | 41%                                 | 23%                                    |

**APPENDIX L (CONT.)**

**GENERAL RECORDKEEPING AND MISCELLANEOUS INFORMATION**

**Question**

38. How long are personnel records on terminated employees retained?

— — — Years (If "forever", code "999")  
(If "unknown", code "998")

**TABLE L31  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 38 — RETENTION OF RECORDS FOR TERMINATED EMPLOYEES**

| Mineral Industry | #YEARS RECORDS RETAINED |      |      |         |         |
|------------------|-------------------------|------|------|---------|---------|
|                  | 0-4                     | 5-10 | >=11 | UNKNOWN | FOREVER |
| Stone            | 1%                      | 17%  | 4%   | 27%     | 50%     |
| Nonmetallic      | 2%                      | 8%   | 5%   | 12%     | 71%     |
| Metallic         | 1%                      | 16%  | 5%   | 11%     | 65%     |
| Sand & Gravel    | 6%                      | 12%  | 0%   | 41%     | 40%     |
| Anthracite       | 2%                      | 0%   | 0%   | 17%     | 81%     |
| Bituminous       | 7%                      | 4%   | 0%   | 20%     | 69%     |
| All Mining       | 4%                      | 9%   | 2%   | 21%     | 63%     |

**Question**

39. Do you keep employee absenteeism records?

- 1 Yes, showing specific nature of illness where appropriate
- 2 Yes, showing only the type of absence
- 3 Yes, without showing the type of absence
- 4 No

**TABLE L32  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 39 — ABSENTEEISM RECORDS**

| Min. Industry | Yes-nature of illness | Yes-type absence | Yes-w/o type absence | No  |
|---------------|-----------------------|------------------|----------------------|-----|
| Stone         | 9%                    | 55%              | 32%                  | 4%  |
| Nonmetallic   | 10%                   | 75%              | 10%                  | 3%  |
| Metallic      | 12%                   | 85%              | <5%                  | 1%  |
| Sand & Gravel | 6%                    | 37%              | 29%                  | 29% |
| Anthracite    | 15%                   | 48%              | 22%                  | 15% |
| Bituminous    | 3%                    | 84%              | 13%                  | 1%  |
| All Mining    | 6%                    | 74%              | 16%                  | 4%  |

**APPENDIX L (CONT.)**

**Question**

40. What is your rate of unscheduled absenteeism?

— — — days per employee per year (If unknown, code "998")

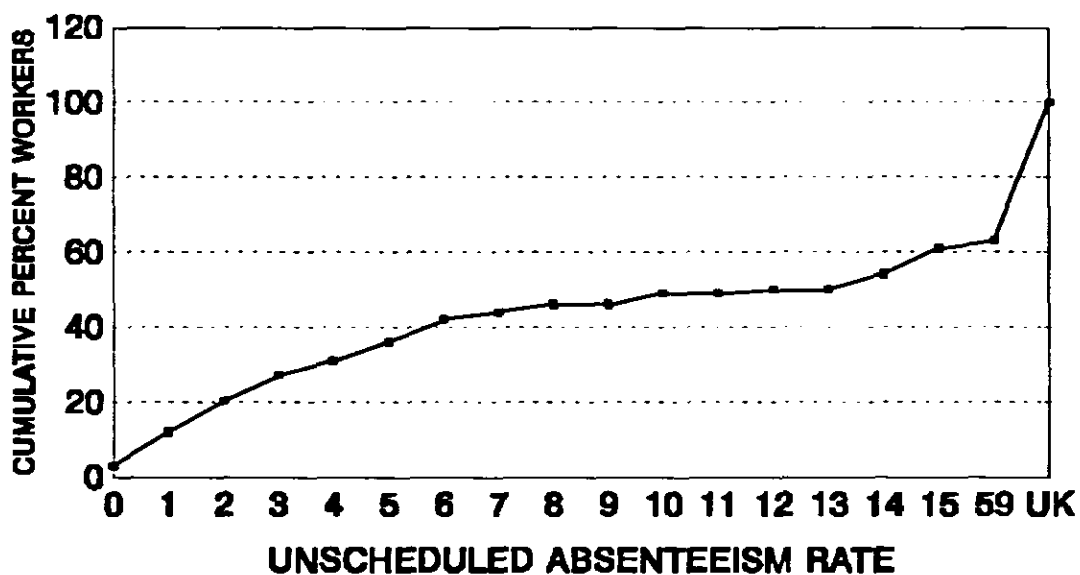
**TABLE L33  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 40 — UNSCHEDULED ABSENTEEISM RATE  
(RESULTS IN RANGES OF DAYS PER EMPLOYEE PER YEAR)**

| Mineral Industry | Unscheduled absenteeism (days per employee per year) |      |      |         |
|------------------|--|------|------|---------|
|                  | 0-4  | 5-10 | >=11 | UNKNOWN |
| Stone            | 33%  | 16%  | 3%   | 47%     |
| Nonmetallic      | 27%  | 27%  | 1%   | 44%     |
| Metallic         | 44%  | 24%  | 5%   | 24%     |
| Sand & Gravel    | 37%  | 10%  | 0%   | 53%     |
| Anthracite       | 45%  | 14%  | 11%  | 30%     |
| Bituminous       | 28%  | 15%  | 27%  | 30%     |
| All Mining       | 31%  | 17%  | 15%  | 36%     |

APPENDIX L (CONT.)

PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 40 — UNSCHEDULED ABSENTEEISM RATE  
(RESULTS IN CUMULATIVE PERCENT OF PROJECTED WORKER'S  
WITH GIVEN ABSENTEEISM RATE)

**FIGURE 6**  
**UNSCHEDULED ABSENTEEISM RATE**  
**(DAYS PER EMPLOYEE PER YEAR)**



UK INCLUDES UNKNOWN RESPONSES  
59 DAYS IS THE MAXIMUM ABSENTEEISM RATE

**APPENDIX L (CONT.)**

**Question**

41. What is your turnover rate among permanent employees in the non-administrative areas?

\_\_ \_\_ \_\_% per year

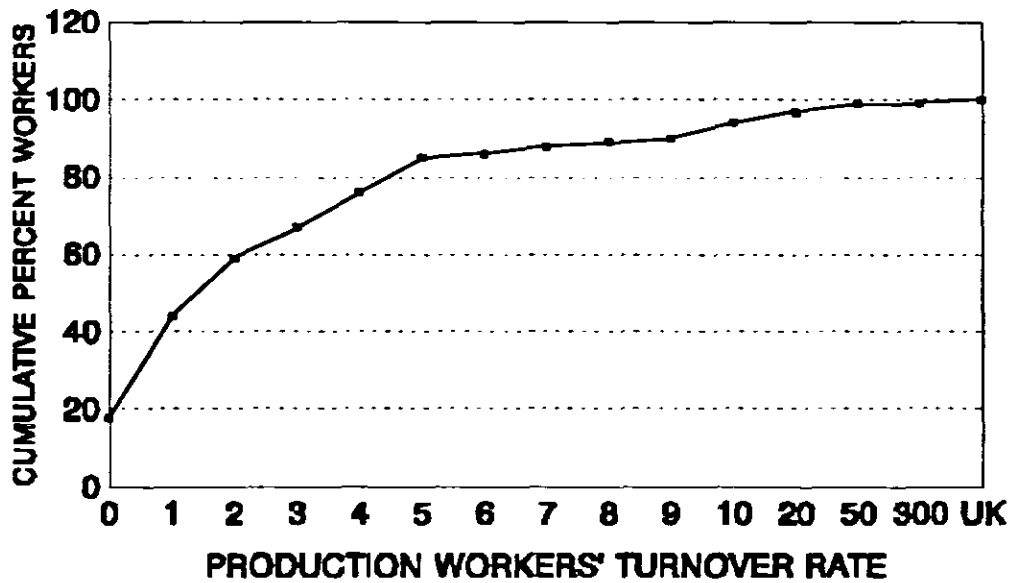
**TABLE L34  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 41 — PRODUCTION WORKER'S TURNOVER RATE  
(RESULTS IN RANGES OF TURNOVER RATE % PER YEAR)**

| Mineral Industry | 0-4 | Turnover Rate % per year |      | UNKNOWN |
|------------------|-----|--------------------------|------|---------|
|                  |     | 5-10                     | >=11 |         |
| Stone            | 63% | 24%                      | 10%  | 1%      |
| Nonmetallic      | 70% | 21%                      | 7%   | 0%      |
| Metallic         | 61% | 25%                      | 12%  | 0%      |
| Sand & Gravel    | 40% | 42%                      | 17%  | 0%      |
| Anthracite       | 56% | 31%                      | 13%  | 0%      |
| Bituminous       | 91% | 9%                       | 0%   | 0%      |
| All Mining       | 76% | 18%                      | 6%   | <.5%    |

APPENDIX L (CONT.)

PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 41 — PRODUCTION WORKER'S TURNOVER RATE  
(RESULTS IN CUMULATIVE PERCENT OF PROJECTED WORKER'S  
WITH GIVEN TURNOVER RATE)

**FIGURE 7**  
**CUMULATIVE WORKER'S TURNOVER RATE (%/YEAR)**



UK INCLUDES UNKNOWN RESPONSES

300% IS THE MAXIMUM PRODUCTION WORKER'S TURNOVER RATE

**APPENDIX L (CONT.)**

**Question**

42. What year was your personnel record system begun?

Year system begun \_\_\_ \_\_\_ \_\_\_ (If "unknown", code "998")

**TABLE L35  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 42 — YEAR PERSONNEL SYSTEM BEGUN**

| Mineral Industry | YEAR PERSONNEL SYSTEM BEGUN |       |       |       |       |       |         |
|------------------|-----------------------------|-------|-------|-------|-------|-------|---------|
|                  | <1940                       | 41-50 | 51-60 | 61-70 | 71-80 | 81-90 | UNKNOWN |
| Stone            | 11%                         | 6%    | 12%   | 8%    | 11%   | 20%   | 31%     |
| Nonmetallic      | 11%                         | 8%    | 10%   | 17%   | 25%   | 6%    | 20%     |
| Metallic         | 6%                          | 3%    | 15%   | 21%   | 15%   | 22%   | 17%     |
| Sand & Gravel    | 5%                          | 4%    | 5%    | 7%    | 25%   | 28%   | 27%     |
| Anthracite       | 0%                          | 5%    | 3%    | 25%   | 21%   | 33%   | 13%     |
| Bituminous       | 7%                          | 8%    | 11%   | 14%   | 44%   | 9%    | 8%      |
| All Mining       | 8%                          | 7%    | 11%   | 14%   | 30%   | 14%   | 16%     |

**Question**

43. Which of the following items are contained in that system?

- 1 Social security number
- 2 Date of birth
- 3 Date(s) of employment with this facility
- 4 Jobs held at this facility
- 5 Employment history at other facilities
- 6 Sex of worker
- 7 Worker's race
- 8 Worker's home address



**APPENDIX L (CONT.)**

**TABLE L36  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 43 — PERSONNEL SYSTEM ITEMS**

| Min. Industry | SSN  | Bday | Workdates | Jobs Held | Job history | Sex | Race | Home Add |
|---------------|------|------|-----------|-----------|-------------|-----|------|----------|
| Stone         | 99%  | 99%  | 99%       | 89%       | 73%         | 90% | 57%  | 99%      |
| Nonmetallic   | 99%  | 97%  | 98%       | 87%       | 69%         | 84% | 60%  | 97%      |
| Metallic      | 98%  | 98%  | 98%       | 97%       | 82%         | 85% | 52%  | 98%      |
| Sand & Gravel | 100% | 100% | 100%      | 76%       | 64%         | 84% | 58%  | 100%     |
| Anthracite    | 98%  | 95%  | 93%       | 54%       | 52%         | 76% | 39%  | 95%      |
| Bituminous    | 100% | 100% | 100%      | 97%       | 87%         | 85% | 54%  | 100%     |
| All Mining    | 99%  | 99%  | 99%       | 92%       | 80%         | 86% | 55%  | 99%      |

NOTE: The abbreviations in the table headings stand for: SSN - Social Security Number; Bday - Birth date; Workdates - Date(s) of employment with this facility; Jobs Held - Jobs held at this facility; Job History - Employment history at other facilities; Sex - Sex of worker; Race - Worker's race; and Home Add - Worker's Home Address.

**Question**

46. If your mine uses diesel equipment in an underground location, when were the first diesel units brought into the mine?

- 1 We use no diesels in the underground locations of this mine.
- 2 We use diesels in underground locations of this mine, and the first diesel was brought into the mine during \_\_\_\_\_.

(If "unknown" code "998")

**TABLE L37  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 46 — FIRST YEAR DIESELS USED UNDERGROUND**

| Mineral Industry | FIRST YEAR DIESELS USED UNDERGROUND |       |       |       |       |         |      |
|------------------|-------------------------------------|-------|-------|-------|-------|---------|------|
|                  | 1941-50                             | 51-60 | 61-70 | 71-80 | 81-90 | UNKNOWN | NONE |
| Stone            | 2%                                  | <5%   | 0%    | <5%   | 0%    | 3%      | 93%  |
| Nonmetallic      | 1%                                  | 10%   | 7%    | 2%    | 2%    | 3%      | 74%  |
| Metallic         | 0%                                  | 4%    | 8%    | 12%   | 3%    | 0%      | 70%  |
| Sand & Gravel    | 0%                                  | 0%    | 0%    | 0%    | 0%    | 0%      | 100% |
| Anthracite       | 0%                                  | 0%    | 0%    | 4%    | 0%    | 0%      | 96%  |
| Bituminous       | 0%                                  | 0%    | 0%    | 0%    | 0%    | 0%      | 100% |
| All Mining       | <5%                                 | 2%    | 2%    | 2%    | 1%    | 1%      | 92%  |

**APPENDIX L (CONT.)**

**Question**

47. Does this facility have any equipment that uses PCB-containing fluids?

- 1 Yes
- 2 No
- 3 Unknown

**TABLE L38  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 47 — EQUIPMENT USING PCB-CONTAINING FLUIDS**

| <b>Mineral Industry</b> | <b>Yes</b> | <b>No</b> | <b>Unknown</b> |
|-------------------------|------------|-----------|----------------|
| Stone                   | 42%        | 49%       | 8%             |
| Nonmetallic             | 58%        | 36%       | 5%             |
| Metallic                | 77%        | 20%       | 1%             |
| Sand & Gravel           | 11%        | 67%       | 22%            |
| Anthracite              | 22%        | 69%       | 9%             |
| Bituminous              | 53%        | 35%       | 11%            |
| All Mining              | 51%        | 39%       | 10%            |

**Question**

48. Does this facility rotate shifts, and if so how often?

- 1 Yes, this facility rotates shifts on a \_\_\_\_\_ basis.
- 2 No, this facility does not use shift rotation.

**TABLE L39  
PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE  
QUESTION 48 — SHIFT ROTATION**

| <b>Mineral Industry</b> | <b>Yes</b> | <b>No</b> |
|-------------------------|------------|-----------|
| Stone                   | 43%        | 56%       |
| Nonmetallic             | 70%        | 29%       |
| Metallic                | 91%        | 7%        |
| Sand & Gravel           | 5%         | 95%       |
| Anthracite              | 28%        | 72%       |
| Bituminous              | 41%        | 59%       |
| All Mining              | 48%        | 51%       |

## APPENDIX L (CONT.)

### Question

49. Does this facility have a Labor-Management Health Committee?

- 1 Yes, we have a Labor-Management Health Committee.
- 2 No, we do not have a Labor-Management Health Committee.

**TABLE L40**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 49 — LABOR-MANAGEMENT HEALTH COMMITTEE**

| Mineral Industry | Yes | No  |
|------------------|-----|-----|
| Stone            | 36% | 63% |
| Nonmetallic      | 41% | 58% |
| Metallic         | 36% | 62% |
| Sand & Gravel    | 8%  | 92% |
| Anthracite       | 44% | 56% |
| Bituminous       | 62% | 38% |
| All Mining       | 48% | 52% |

### Question

51. If you have an assay laboratory, or if you have access to assay reports, then may I have as an example a copy of each unique type of assay report?

- 1 Yes, we have an assay laboratory at this facility, but you may not have a copy of an assay report.
- 2 Yes, we have an assay laboratory at this facility, and you may have a copy of an assay report.
- 3 Yes, you may have a copy of each type of assay report, but we have no assay laboratory at this facility. Our reports come from an off-facility laboratory.
- 4 No, we have no assay laboratory at this facility.

**TABLE L41**  
**PROJECTED RESULTS BASED ON THE NOHSM QUESTIONNAIRE**  
**QUESTION 51 — ASSAY REPORTS**

| Mineral Industry | Yes lab-No report | Yes lab-Yes report | No lab-Yes report | No lab |
|------------------|-------------------|--------------------|-------------------|--------|
| Stone            | 2%                | 35%                | 12%               | 50%    |
| Nonmetallic      | 6%                | 37%                | 17%               | 35%    |
| Metallic         | 26%               | 36%                | 4%                | 31%    |
| Sand & Gravel    | 0%                | 4%                 | 0%                | 96%    |
| Anthracite       | 3%                | 12%                | 22%               | 63%    |
| Bituminous       | 0%                | 22%                | 33%               | 37%    |
| All Mining       | 4%                | 27%                | 21%               | 43%    |