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BBN REPORT 4535

INDUSTRIAL MACHINERY NOISE IMPACT MODELING
VOL. II - APPENDICES

May 1981

BBN Project 09635
EPA Contract 68-01-5892

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Submitted to:

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APPENDIX A

THEORETICAL BASIS FOR THE ERROR
ESTIMATES PRESENTED IN CHAPTER 6A.1 Introduction

As mentioned in Chapter 6, there are eight important parameters which are predicted by the computer program. These parameters will be discussed in the same order here.

A.2 Total Level Weighted Population Values
(Parameter 1, Chapter 6)

Let the following notation for level weighted population (LWP) values be defined:

y = true LWP value for the entire industry

y_j = true LWP value for the j th plant within the industry

y_i = computed LWP value for the i th plant in a sample of n plants from the industry

y_n = computed LWP value for a sample of n plants from the industry

m = total number of personnel in the industry

m_j = number of personnel in the j th plant within the industry

m_i = number of personnel in the i th plant in a sample of plants from the industry

m_n = number of personnel in the sample

n = number of plants in sample

p = number of plants within the industry

The LWP values, y , y_j , y_i , and y_n , are directly proportional to the number of personnel, m , m_j , m_i , and m_n . Hence, the LWP values can be normalized to LWP (personnel population) as follows.

$$\begin{aligned} x &= y/m \\ x_j &= y_j/m_j ; j = 1,2,3,\dots,p \\ x_i &= y_i/m_i ; i = 1,2,3,\dots,n \\ x_n &= y_n/m_n \end{aligned} \quad (A.1)$$

Since the normalized LWP values, x_i , each represent an average value for m_i personnel, the mean and variance of x_i ; $i = 1, 2, \dots, n$, must be computed with proper weighting for the population size associated with each sample. This is readily done in the following way.

$$\bar{x} = \frac{1}{m_n} \sum_{i=1}^n m_i x_i \quad s^2 = \frac{1}{m_n - 1} \sum_{i=1}^n m_i (x_i - \bar{x})^2 \quad (A.2)$$

Note that due to nonlinear operations in the computations which produce the LWP values, the sample average \bar{x} in Eq (A.2) will not necessarily equal the normalized LWP value x_n for all plants in the sample, as defined in Eq (A.1). Nevertheless, the sample standard deviation s constitutes a valid measure of variability in the normalized LWP values among different plants which can be used to establish confidence limits about the final predicted LWP values for the industry.

A.2.1 Confidence Limits for Industry

Given a sample of size n , a $(1-\alpha)$ confidence interval on the true value of the normalized LWP value x is given by [11]

$$x_n - \frac{s}{\sqrt{n}} t_{n-1;\alpha/2} \leq x \leq x_n + \frac{s}{\sqrt{n}} t_{n-1;\alpha/2} \quad (\text{A.3})$$

where x_n = normalized LWP value computed from Eq (A.1) for the sample of n plants (not \bar{x}),

s = standard deviation of normalized LWP values for individual plants computed from Eq (A.2),

$t_{n-1;\alpha/2}$ = $\alpha/2$ percentage point of Student "t" variable with $n-1$ degrees of freedom.

Hence, the $(1-\alpha)$ confidence interval for the industry LWP value $y = mx$ is obtained by multiplying Eq (A.3) by the total number of personnel in the industry, that is,

$$mx_n - \frac{ms}{\sqrt{n}} t_{n-1;\alpha/2} \leq y \leq mx_n + \frac{ms}{\sqrt{n}} t_{n-1;\alpha/2} \quad (\text{A.4})$$

Note that Eq (A.4) assumes $n \ll p$, which will generally be true.

A.2.2 Prediction Limits for Individual Plants

Of interest now is the $(1-\alpha)$ tolerance (prediction) interval for the LWP values of individual plants within the industry, i.e., that interval about x_n which will include the normalized LWP values for at least $(1-\alpha)$ portion of all plants within the industry. If one is prepared to assume the normalized

level weighted population values x_j are normally distributed, then tolerance limits might be generated using conventional normal tolerance tables [12]. In this case, however, the problem is complicated by the fact that the x_j values do not have a common variance. Specifically, the larger the number of personnel m_j , the closer x_j is likely to be to x_n .

Under the assumption that the sample of plants are representative of the industry, including typical numbers of personnel, some indication of the probable dispersion of normalized LWP values for individual plants is provided by the following nonparametric statement. Given a sample of n plants with normalized LWP values of x_i , $i = 1, 2, \dots, n$, it can be said that at least β portion of all values of for the industry will fall between the largest and smallest values of x_i with confidence [13]

$$\gamma = 1 - \beta^n - n(1-\beta)\beta^{n-1} \quad (A.5)$$

For example, given a sample of $n = 10$ plants and a value of $\beta = 0.80$, it can be said that with $100\gamma = 62\%$ confidence that at least $100\beta = 80\%$ of all plants in the industry will have a normalized LWP value x_j which falls between the largest and smallest values of x_i computed for the $n = 10$ plants in the sample.

A.3 Number of Critically Exposed Personnel (Parameters 2, 3 and 4, Chapter 6)

Let the following notation be defined.

q = total number of personnel in the industry exposed to
 $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA)

q_j = number of personnel in the j th plant within the industry exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA)

q = total number of personnel in the industry exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA)

q_1 = number of personnel in the i th plant in a sample of n plants with the industry exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA)

q_n = total number of personnel in a sample of n plants within the industry exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA)

m = total number of personnel in the industry

m_j = number of personnel in the j th plant within the industry

m_1 = number of personnel in the i th plant in a sample of plants within the industry

m_n = total number of personnel in a sample of n plants within the industry

n = sample size

p = number of plants within the industry.

It follows that the fractions of personnel (POP) exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA) are given by

$$\begin{aligned}
 \theta &= q/m \\
 \theta_j &= q_j/m_j ; j = 1, 2, 3, \dots, p \\
 \theta_1 &= q_1/m_1 ; 1 = 1, 2, 3, \dots, p \\
 \theta_n &= q_n/m_n
 \end{aligned}
 \tag{A.6}$$

To arrive at a mean and variance for the sample FOP values θ_1 , each sample value must be weighted by the population size from which it was computed. Hence, the sample mean and variance are given by

$$\bar{\theta} = \frac{1}{m_n} \sum_{i=1}^n m_i \theta_i \quad s^2 = \frac{1}{m_n - 1} \sum_{i=1}^n m_i (\theta_i - \bar{\theta})^2 \quad (\text{A.7.})$$

Again note that due to nonlinear operations in the computations which produce the FOP values, the sample average $\bar{\theta}$ in Eq (A.7) will not necessarily equal the overall FOP value θ_n for the sample plants, as defined in Eq (A.6). However, as before, the sample standard deviation s , computed with proper weighting as per Eq (A.7), constitutes a valid measure of variability in the FOP values among different plants.

A.3.1 Confidence Limits for Industry

Given a sample of size n , a $(1-\alpha)$ confidence interval on the true value of the fraction of personnel (FOP) exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dB) is given by [11].

$$\theta_n - \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \leq \theta \leq \theta_n + \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \quad (\text{A.8})$$

where θ_n = FOP value computed from Eq (A.6) for the sample of n plants, (not $\bar{\theta}$)

s = standard deviation of weighted FOP values for individual plants computed from Eq (A.3)

$t_{n-1; \alpha/2}$ = Student "t" variable as defined in Eq (A.3).

It should be mentioned that one might consider estimating confidence intervals for the FOP value θ using straightforward binomial theory. Specifically, assuming a sample size of $n > 50$, it can be shown [14] that the probability distribution of the sample fraction θ_n is closely approximated by a normal distribution with a mean value of θ and a standard deviation of

$$s_1 = \sqrt{\theta(1-\theta)/n} \quad (\text{A.9})$$

Under ideal conditions, the value of s_1 in Eq (A.9) should be approximately equal to the value s/\sqrt{n} in Eq (A.8). Sample calculations for the data at hand, however, show that s/\sqrt{n} in Eq (A.8) consistently exceeds s_1 in Eq (A.9) by up to 400%. This suggests that there are variations influencing the value θ_1 from one plant to the next which are beyond straightforward binomial sampling considerations. Hence, Eq (A.8) is believed to be a more realistic measure of accuracy.

A.3.2 Prediction Limits for Individual Plant

Prediction limits on the values of θ_j for individual plants in the industry can be generated using Eq (A.5) and the procedures described in Section A.2.1.

A.4 Level Weighted Population Values for Individual Personnel Categories (Parameter 5, Chapter 6)

Let the following notation for Level Weighted Population (LWP) values for individual personnel categories be defined:

y = true LWP value for the given personnel category totaled over the entire industry

y_j = true LWP value for the given personnel category in the j th plant within the industry

y_i = computed LWP value for the given personnel category in the i th plant in a sample of n plants from the industry

y_n = computed LWP value for the given personnel category in a sample of n plants from the industry

m = estimated number of personnel in the entire industry for the given personnel category

m_j = number of personnel in the given personnel category in the j th plant within the industry

m_i = number of personnel in the given personnel category in the i th plant in a sample of plants from the industry

m_n = number of personnel in the given personnel category in the sample of n plants

n = number of plants in sample

p = number of plants within the industry

$x = y/m$

$x_j = y_j/m_j$, $j = 1, 2, 3, \dots, p$

$x_i = y_i/m_i$, $j = 1, 2, 3, \dots, n$

$x_n = y_n/m_n$

Since the normalized LWP values, x_i , each represent an average value for m_i personnel, the mean and variance of x_i ; $i = 1, 2, \dots, n$, must be computed with proper weighting for the population size associated with each sample. This is readily done in the following way.

$$\bar{x} = \frac{1}{m_n} \sum_{i=1}^n m_i x_i \quad s^2 = \frac{1}{m_n - 1} \sum_{i=1}^n m_i (x_i - \bar{x})^2 \quad (\text{A.11})$$

As in previous sections, the sample average \bar{x} in Eq (A.11) will not necessarily equal the overall normalized LWP value x_n for each personnel category in the sample plants, but the sample standard deviation s constitutes an acceptable measure of variability in the normalized LWP values among the different plants for a given type of machine.

Given a sample of size n , a $(1-\alpha)$ confidence interval on the true value of the normalized LWP for a specific personnel category is given by [1]

$$x_n - \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \leq x \leq x_n + \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \quad (\text{A.12})$$

where x_n = normalized LWP value computed for the sample of n plants

s = standard deviation of the normalized LWP values for individual plants computed from Eq (A.11)

$t_{n-1; \alpha/2}$ = Student "t" variable as defined in Eq (A.3).

The confidence limits for the level weighted population values for each category (totaled over the entire industry) is obtained by multiplying the normalized values by the estimated personnel category population for the entire industry.

A.5 Daily Noise Dose Values for Individual Personnel Categories (Parameter 6, Chapter 6)

Let the following notation for Daily Noise Dose (DND) values be defined

y = true DND value for a given personnel category used in the industry

y_i = computed DND value for that personnel category in the i th plant in a sample of n plants from the industry

y_n = computed DND value for that personnel category in the sample of n plants from the industry

m = number of personnel in the sample of n plants

m_i = number of personnel in the i th plant

m_n = number of personnel in the sample

n = number of plants in sample

$$\bar{y} = \frac{1}{m} \sum_{i=1}^n m_i y_i \quad s^2 = \frac{1}{m-1} \sum_{i=1}^n m_i (y_i - \bar{y})^2 \quad (A.13)$$

As in previous sections, the sample average \bar{y} in Eq (A.13) will not necessarily equal the overall DND value y_n for the sample plants, but the sample standard deviation s constitutes an acceptable measure of variability in the DND values among the different plants for a given personnel category.

Given a sample of size n , a $(1-\alpha)$ confidence interval on the true value of the DND for a specific personnel category is given by [11]

$$y_n - \frac{s}{\sqrt{n}} t_{n-1;\alpha/2} \leq y \leq y_n + \frac{s}{\sqrt{n}} t_{n-1;\alpha/2} \quad (\text{A.14})$$

where y_n = DND value computed on the sample of n plants

s = standard deviation of the DND values for individual plants computed from Eq (A.13)

$t_{n-1;\alpha/2}$ = Student "t" variable as defined in Eq (A.3).

A.6 Normalized Priority Index Values Calculated Using Both EPA and OSHA Criteria (Parameters 7 and 8, Chapter 6)

Let the following notation for normalized priority index (NPI) values be defined

y = true NPI value for a given type of machine used in the industry

y_i = computed NPI value for that type of machine in the i th plant in a sample of n plants from the industry

y_n = computed NPI value for that type of machine in the sample of n plants from the industry

m = number of personnel in the sample of n plants

m_i = number of personnel in the i th plant

n = number of plants in the sample

The variability of the y_i values for each type of machine is actually a complicated function of the number of machines and the number of personnel exposed to the noise from the machines of that type in each plant. However, for the purposes of establishing confidence intervals on y based upon the y_n values, it will be assumed that the variability of the y_i values are related only to the number of personnel in a given plant so that the sample average and variance are then given by

$$\bar{y} = \frac{1}{m} \sum_{i=1}^n m_i y_i \quad s^2 = \frac{1}{m-1} \sum_{i=1}^n m_i (y_i - \bar{y})^2 \quad (\text{A.15})$$

As in previous sections, the sample average \bar{y} in Eq (A.15) will not necessarily equal the overall NPI value y_n for the sample plants, but the sample standard deviation s constitutes an acceptable measure of variability in the NPI values among the different plants for a given type of machine.

Given a sample of size n , a $(1-\alpha)$ confidence interval on the true value of the normalized priority index (NPI) for a specific type of machine is given by [11]

$$y_n - \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \leq y \leq y_n + \frac{s}{\sqrt{n}} t_{n-1; \alpha/2} \quad (\text{A.16})$$

where y_n = NPI value computed for the sample of n plants

s = standard deviation of the NPI values for individual plants computed from Eq (A.15)

$t_{n-1; \alpha/2}$ = Student "t" variable as defined in Eq (A.3).

APPENDIX B

USERS GUIDE FOR COMPUTER PROGRAM

B.1 General Description

At this time the computer program is coded in Fortran IV language and exists in the form of cards, approximately 3500 in number. All of the data required for an analysis are also in the form of cards which follow the main program. The program may be run by reading the cards through a card reader located either at the Washington Computer Center or at a high speed remote terminal. This form of program use is time consuming; in the future, following completion of all program modifications, the program will be accessible from a disc file as discussed in Section 3 of this Appendix.

The most important aspect of the use of the program at this stage is the correct arrangement of the input data cards which follow the main program. The input data requirements and arrangements are discussed in the next section.

The program in its present form performs the analyses and produces the results described in this report. However there are a number of extensions and refinements which are recommended for future work and which will simplify its use and extend its usefulness. These refinements are discussed in Section 3 of this Appendix. A listing of the program in its present form is included in Section 4 of this appendix.

B.2 Input Data Requirements

The input data consists of a group of cards; the first three cards are single cards and subsequent cards are in groups, the contents of which will now be described.

The first data card consists of a title and job number which is to appear at the head of each table of results. Columns 1-36 inclusive contain the title and columns 37-42 inclusive contain a 6-digit job number.

The second data card is referred to as the option card and is a list of 30 decisions which must be made regarding the form of input and output data and the type of analysis required. In a future version of the program the number of decisions required will be reduced to 3 or 4 for a standard analysis. Non standard analyses will still be selectable when required.

Each of the 30 decisions are made by punching either a zero or a one in the appropriate column of this card. For example Column 1 corresponds to decision or option 1, column 2 corresponds to option 2, etc. Option 8 uses numbers other than zero or one, as explained below. Some of the decisions or options regarding the form of input and output data, which were considered important during the initial development of the program, are no longer relevant and to avoid confusion will not be discussed. The card columns corresponding to these decisions should be left blank. These decisions or card column numbers are the following: 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 27, 29, 30. This leaves only decision or option numbers 8, 22, 23, 24, 25, 26, and 28 which need to be considered. These are discussed separately below.

Option 8 refers to a decision concerning the number of hours per day that are worked, on average, by personnel in the industry being considered. The option value is half the number of hours worked per day.

For example, if option 8 is equal to 4, then this implies an average of 8 hours are worked each day. The option value is punched in column 8 of the option card. The

largest possible value is 9, corresponding to an 18 hour work day.

Option 22 refers to a decision concerning whether or not it is desired to look at the effect of noise control, for certain types of equipment, on the exposure and equipment impacts. Option 22 is equal to zero if the effect of noise control is not to be included and is equal to one if the effect of noise control is to be included. The option value is punched in column 22 of the option card. If option 22 is made equal to one, noise reduction data will be required at the end of the input data (card group ten). This is discussed in more detail later.

Option 23 refers to input data card number four and subsequent cards (see later) which include a list of industry SIC codes and plants to be analyzed. If option 23 is set equal to zero, each industry or plant number specified in the list is treated separately. If option 23 is set equal to one all items in the list are combined together in the analysis. This provides the ability of averaging over several plants or SIC codes. The option value is punched in column 23 of the option card.

Option 24 is concerned with a decision of whether or not to group certain equipment types together into general equipment classifications in order to produce an additional listing of less detailed results which are easier to interpret. A value of zero means not to group any equipment types together and a value of one means that some equipment types are to be grouped together for an additional results listing and the details of these groupings will be included later in the input data cards (card group number nine). The option value is punched in column 24 of the option card.

Option 25 refers to a decision concerning the extrapolation of average results for several plants in a given industry, to the entire industry. A value of zero means that the results are not to be extrapolated and only average results for the plants considered are to be listed. A value of one means that the results are to be extrapolated to the entire industry on a total population basis. When a value of one is chosen the total population for the industry is included on the cards in Group 4 of the input data cards. The option value is punched in column 25 of the option card.

Option 26 allows for the possibility of replacing individual equipment types in personnel work assignments with the general equipment group which includes the individual equipment type. This may be useful in some cases where there is not much noise level data for some individual equipment types and backgrounds, but where there is sufficient data in the general classification which includes the individual equipment and background types. A value of zero for this option is usually selected and implies that the individual equipment type should not be replaced with the general equipment classification in the personnel work assignments. A value of one for this option implies that the individual equipment types are to be replaced with the general group type in the personnel work assignments. The option value is punched in column 26 of the option card.

Option 28 refers to a selection of the criteria to be used for the analysis. Up to three analyses can be selected simultaneously -- the criteria for each analysis required is punched on the third data card which is described below. A value of zero for this option automatically selects EPA criteria for the analysis. A value of one for this option selects the first analysis criteria on card 3

and presents the results in the OSHA format with the selected criteria at the head of each table. A value of two for this option will produce two analyses. The first will be with EPA criteria and the results will be presented in EPA format. Thus the first analysis criteria on card 3 should be EPA criteria when option 28 equals 2. The second analysis (when option 28 = 2) is based on the second criteria on card 3 and the results are presented in OSHA format. If a value of three is chosen for option 28 then the two analyses corresponding to option 28 = 2 are done first of all as described above and in addition a third analysis is done. This third analysis is based on the third criteria on card 3 and the results are presented in OSHA format.

Note that a blank will give the same results as a zero for any given column on the option card.

The third data card contains the analysis criteria and includes three variables as listed below.

Variable	Card Column Numbers	Format	Value for EPA Anal. (OPT28=0)	Value for CSHA Anal. (OPT28=1)	Value for Other Anal. Selection (OPT28=2,3)	
First Analysis Criteria	Threshold level	1-5	Decimal	75.0	90.0	75.0
	8-hr permissible level	6-10	Decimal	75.0	90.0	75.0
	Exchange rate (dB per halving of expos. time)	11-15	Integer (last digit to be in Column 15)	3	5	3
Second Analysis Criteria	Threshold level	16-20	Decimal	0.0	0.0	User Choice
	8-hr permissible level	21-25	Decimal	0.0	0.0	User Choice
	Exchange rate (dB per halving of expos. time)	26-30	Integer (last digit to be in Column 30)	0.0	0.0	User Choice
Third Analysis Criteria	Threshold level	31-35	Decimal	0.0	0.0	User Choice
	8-hr permissible level	36-40	Decimal	0.0	0.0	User Choice
	Exchange rate (dB per halving of expos. time)	41-45	Integer (last digit to be in Column 45)	0.0	0.0	User Choice

Subsequent input data sets come in groups of two or more cards and will thus be treated in that way. The group of data cards following the third data card described above will be referred to as the fourth group of data cards.

The fourth group of data cards consists of one or more cards terminated by a blank card. On each card prior to the blank card we list the plant number and SIC code corresponding to a plant or SIC code to be analyzed. Up to fifty different cards corresponding to fifty different SIC code-plant number combinations may be used at any one time. In addition to the SIC code and plant number, four 2 digit dates followed by a 6-digit number corresponding to the number of personnel in the plant or industry involved is included on each card. A different card is used for each different plant/SIC code combination which is to be analyzed. Each entry on each card will now be discussed in detail.

SIC Code - Columns 1 to 4

This entry is included on each card whether a single plant or an entire industry is to be considered. The SIC code can be two, three or four digits, the least significant digit to be punched in column 4 of the card and the other digits to immediately precede it.

Plant Number - Columns 6 and 7

This entry is a two digit code describing the plant to be analyzed, the least significant digit to be punched in column 7. If the plant number is set equal to zero or left blank, all plants contained within the SIC code in columns 1 to 4 will be analyzed and the results averaged. If the plant number is set equal to -1 then the average results for all plants contained within the SIC code will be extrapolated using as a basis the population figure in columns 21 to 26 on the same card, provided that option 25 on data card two is set equal to 1.

Dates - Columns 9, 10; 12, 13; 15, 16; 18, 19.

Date 1, columns 9 and 10.

Date 2, columns 12 and 13.

The equipment data to be used in the analysis must have been collected between and including the dates specified. Date 1 is the earlier date and Date 2 is the later date; both consist of the last two digits of the year to be considered. If these columns are left blank, all relevant data will be used in the analysis, regardless of the date on which they were collected.

Date 3 - Columns 15 and 16

Date 4 - Columns 18 and 19

The personnel job assignment data to be used in the analysis must have been collected between and including the above two dates. If these columns are left blank, all relevant data will be used in the analysis regardless of the date on which they were collected.

Industry Population - Columns 21 to 26,
last digit to be in Column 26

These columns need only be completed if Option 25 is chosen to equal one (see option card explanation). The data item required is the total population in the industry which is being considered, and is used when the average results for one or more plants is to be extrapolated to the entire industry.

Notes:

1. This fourth group of cards must be terminated with a blank card.

2. If Option 23 is set equal to one, all of the above data cards will be combined together in the analysis and the average results will be presented. This ability is particularly useful if it is desired to obtain an industry average from a limited number of plants rather than from all the plants in a given industry for which data exist.

The fifth group of data cards is a list of jobs, one card for each job. This group of cards is terminated with a blank card. The maximum number of cards allowed in this group is unlimited. Each card preceding the final blank card should contain the following information.

Job Code - Columns 1 to 5

The first two columns are the first two digits of the relevant SIC code; the last 3 columns contain a 3-digit job code which has not been used previously for jobs in the industry represented by the prior 2-digit code.

Job Description - Columns 7 to 26

The job description is a brief twenty letter outline.

The sixth group of data cards is a list of equipment types and background locations, one card for each type of equipment or background. If it is desirable to look at the exposure problem in terms of plant areas rather than in terms of equipment types then this could be a list of plant areas rather than a list of equipment types and backgrounds. The group of cards is terminated with a blank card. The maximum number of cards allowed in this group is unlimited. Each card preceding the final blank card should contain the following information.

Equipment or background code - Columns 1 to 4

This is a 4-digit numerical code unique to the background or equipment type under consideration, and independent of the industry.

Generic Name - Columns 6 to 22

This description is the general name by which the equipment or background is known and will appear in all results tables. For backgrounds the generic name is BACK/ followed by the generic name for the type of equipment which dominates it.

Equipment Type - Columns 26 to 42

This description will only appear in this list of equipment and is meant to differentiate between different equipment types with the same generic name. For example, manual or automatic.

Equipment Size/Condition Columns 46 to 62

This description also will only appear in this list of equipment and is meant to further differentiate between similar equipment types which differ in size or state of repair.

In addition to the above descriptions, the following points should be noted.

1. For operator enclosed equipment the letters /ENC are added to the Equipment Size/Condition description.

2. For fully or partially enclosed equipment the letters /ENC are added to the Generic Name description.
3. Equipment types with the same generic name (and likely to be later included in the same general classification) should be assigned consecutive I.D. codes.

The seventh group of data cards contains the personnel job assignment data. This group of cards is divided into blocks, one block for each plant considered. The number of blocks is equal to the number of plants for which we have data.

The first card in each data block contains the following information.

1. SIC Code - Columns 1 to 4

This code is usually a four-digit code. If a two- or three-digit code is used, the last digit should appear in column four, and be immediately preceded by the other digit(s). This is the SIC code for the industry containing the plant where the data were collected.

2. Plant Code - Columns 6 and 7

This two-digit code is the plant identity number for the plant where the data to follow were collected. If the plant identity number is unknown or if the data represents an average over several plants, then a zero should be used for the plant identity number.

3. Date - Columns 9 and 10

This is a number consisting of the last two digits of the year in which the data were collected.

Subsequent data cards in each data block come in pairs, one pair for each item of personnel job assignment data. The first card of each pair contains the following information.

1. 3-digit Job Code - Columns 1 to 3

This code should identify the job with the corresponding description contained in the list of jobs (card group five).

2. 4-digit Number - Columns 20 to 23

This number corresponds to the number of personnel in this category, the last digit should appear in Column 23 and be immediately preceded by the other digits.

3. 4-digit Equipment or Background Code - Columns 24 to 27

This corresponds to a type of equipment operated for a significant percentage of time by personnel in this category or to a background location where personnel in this category spend some significant percentage of their time, averaged on a yearly basis. This code should be identified somewhere in the list of equipment (card group six).

4. Percent of Time - Columns 28 to 33

This is a decimal number which indicates the average percentage of time that personnel in this category spend in the location described by the preceding equipment or background code. An accuracy of one decimal place is sufficient.

5. Items 3 and 4 above are repeated for up to four additional equipment or background codes, using the following card columns for the data.

Columns for Equipment or Background Codes (4-digit integer)	Columns for % of Time Spent (decimal number)
34-37	38-43
44-47	48-53
54-57	58-63
64-67	68-73

If there are less than five different equipment or background codes describing locations where personnel in this category spend their time, then the unused columns may be left blank.

The second card of each pair contains the following information.

1. Five repeats of items 3 and 4 above, using the following columns for the data.

Columns for Equipment or Background Codes (4-digit integer)	Columns for % of Time Spent (decimal number)
24-27	28-33
34-37	38-43
44-47	48-53
54-57	58-63
64-67	68-73

This second card should always be included. If there are no data to put on it, a zero should be punched in column 27. The total time spent at all the different locations represented by different equipment or background codes must add up to 100%.

Note that there may be more than one set of data in each block for each personnel category. The computer program will separate or combine the sets as appropriate following the guidelines in Section 5.

Each block of card pairs should be terminated with a final additional card which is blank. At the end of the final block in this group a second blank card should be added.

If an equipment code is specified for which there is no data in the eighth group of cards, then the program will printout this information, so that the user can check the data.

The maximum number of data cards allowed in this group is 300.

The eighth group of data cards contains the noise level data for equipment types and background locations. As for the seventh group, this group is divided into blocks of data, one block for each plant considered.

The first card in each data block contains the same information as the corresponding card in the seventh group of cards. This is:

SIC Code	2-4 digits,	Columns 1 to 4
Plant Number	2 digits,	Columns 6 and 7
Date	2 digits,	Columns 9 and 10

Subsequent cards contain the following information: one card for each noise level measurement.

1. 4-digit Equipment or Background Code - Columns 3 to 6

This code should identify the appropriate background or equipment type in the list of equipment (card group six), which corresponds to the noise level measurement to follow in columns 27 to 31.

2. Equipment or Background Noise Level - Columns 27 to 31

This is a decimal number and is the average noise level in dBA at the location characterized by the background or equipment type described by the 4-digit code in Columns 3 to 6. Note: noise levels characterized by equipment types are measured at the operator location -- other noise level measurements are backgrounds.

3. Remaining Columns on the card are left blank if the noise level is for an equipment type. If the noise level and the 4-digit code corresponds to a background measurement then these remaining columns on the card are punched with information on the equipment types which contribute to the background noise level. This information is arranged as follows:

<u>Information Description</u>	<u>Card Columns</u>	<u>Format</u>
Equipment Code 1	34-37	Integer
Contribution of Equipment Code 1 to Background Level	39-42	Decimal
Equipment Code 2	44-47	Integer
Contribution of Equipment Code 2 to Background Level	49-52	Decimal
Equipment Code 3	54-57	Integer
Contribution of Equipment Code 3 to Background Level	59-62	Decimal

Notes:

- (1) A maximum of three equipment codes are allowed to characterize each background. Less than three may be used if desired.
- (2) The total contribution from all equipment codes used must add up to one.
- (3) For a primary contributor, a contribution of 0.4 signifies a weak source, 0.7 a strong source, 0.9 a very strong source, such that other sources can barely be distinguished, and 1.0 indicates a sole source.

- (4) The background is identified by the generic name of the dominant equipment type, preceded by the letters BACK/.
- (5) Secondary contributors must have smaller contributions than the dominant equipment type for each background measurement, otherwise a new background code should be introduced. However, the same background code and description may be used for several sets of data if the dominant equipment types belong to the same general equipment class as defined by the generic name (Card Group 6) and also by the general code defined in Card Group 9.
- (6) More than one sound level measurement for the same background type is desirable, each measurement to be on a new data card. However the dominant equipment type should be in the same general equipment class for each measurement. Different secondary contributors may appear in each measurement, provided that the total number of equipment types contributing to a given background type (or code) is less than or equal to 20.

Note that there may be more than one set of data (or more than one data card) for any equipment types in a given plant.

Each block of cards (usually representing a single plant) should be terminated with a blank card. At the end of the final block in this group a second blank card should be added. A maximum of 600 data cards is allowed in this group.

The ninth group of cards is a list of equipment types which are to be grouped together because they have the same generic

name. If option 24 is equal to zero this group of cards is omitted entirely; if option 24 is equal to one, then one card is used for each equipment grouping. Each card contains the following information.

1. A four digit equipment code - Columns 1 to 4

This code corresponds to an entire classification or group of equipment and is unique to this equipment group. In the list of equipment (card group 6) the entries under Type and Size/Condition for these codes are both GENERAL.

2. Two four-digit equipment codes which represent the first and last equipment codes in a given equipment classification. The general classification includes all equipment codes which numerically lie between and include the two codes mentioned here.

- (a) The first code - Columns 6 to 9 - defines the lower boundary.

- (b) The second code - Columns 11 to 14 - defines upper boundary.

3. A 17 letter description of the general equipment classification (or generic name) characterized by the code in columns 1 to 4. This description occupies Columns 21 to 37.

4. Two two-digit dates which indicate the period in which the sound level data which we want to include in the general classification were collected. If all data are to be included, regardless of when they were collected, this entry may be left blank. The two

digits used to characterize the dates are the last two digits of the year in which the data were collected.

(a) The first date - Columns 56 and 57 - is the earliest date to be included.

(b) The second date - Columns 60 and 61 - is the latest date to be included.

5. SIC Code - Columns 64 to 67

This is the code for the industry to be associated with the general equipment classification. If a two- or three-digit code is used, the last digit should appear in Column 67 and the other digits should immediately precede it. A two-digit code implies that the broadest classification possible is desired and data for all equipment having the same first 2 digits for the SIC code will be included.

This group of cards is terminated with a blank card. A maximum of fifty cards is allowed in this group.

The tenth group of cards is a list of noise reduction data to be used if it is desired to look at the effect of noise reduction on particular equipment types. This group is only included if the value of option 22 is one. Each data card contains the following information.

1. Two 4-digit equipment codes

All equipment types with codes lying numerically between and including these codes are to be considered.

- (a) The first code - Columns 1 to 4 - defines the lower boundary.
- (b) The second code - Columns 7 to 10 - defines the upper boundary.

2. Two-digit attenuation value - Columns 13 and 14

This value in dBA is a whole number and is the noise reduction to be applied to the equipment types identified in the previous columns of this card. If only a single digit number is used it should appear in column 14.

Noise reductions are automatically applied to a background level if an equipment type to be treated contributes to that level. The noise reductions applied to the background level are determined from the contribution of the equipment type to be treated and the amount of noise reduction to be applied to that equipment type. After noise reduction, the contributions of each equipment type to the background level are recalculated. This is described in detail in Section 3 of this report.

Up to 50 cards may be used in this group, each card to represent a different range of equipment codes. This card group should be terminated with a blank card.

The input data set should finally be terminated with a card with a / punched in column 1 and a * punched in column 2.

Sample forms which may be used for field collection of data and from which data cards may be punched directly are included in Section 4 of this report.

B.3 Proposed Refinements and Additions to Computer Program

The refinements and additions discussed here are referred to in a general sense in the main body of the report in Section 7 titled "Recommendations for Future Work". Each is discussed separately and in detail below.

1. Establishment of a data bank on disc file or magnetic tape. The data bank would contain List of Jobs data, List of Equipment data, Equipment and Background Noise data and Personnel Work Assignment data for plants in each industry of interest. The size of this data bank would be unlimited and new data could be added as it is collected. A method will be established whereby the data bank is not destroyed if there is a computation error or malfunction when new data are being added. The inclusion of total industry populations for each industry for which data exists will also be allowed for.

The purpose of this inclusion is so that eventually a program user could use the data bank to make predictions for a given industry, with no prior knowledge necessary.

2. Alterations in the main computer program to allow the use of the data bank. The program would have to be modified to allow the following options:
 - (a) Use of data bank data only for an analysis
 - (b) Use only of data included in the input data cards at the end of the main program - no data bank data for an analysis.

- (c) Addition of input data to the data bank. This will probably be a separate program which will produce no analysis results, but which would arrange the data appropriately and print out the data which is being added to the data bank. The ability to update total industry populations will also be included.

In addition, the program will be modified to allow the use of either data bank data or input data cards to determine the total population of the industry to be analyzed.

The program will also be written such that any total population data included in card group four will automatically override the data bank data.

- 3. Alterations to the main program to minimize the number of decisions required on the user's part, and to allow some results to be obtained just by specifying a SIC code and plant number and by making no decisions at all. If different or more detailed results are required, then the user can utilize his option to make some simple decisions.
- 4. Addition of a third alternative to Option 25. This will allow a more detailed and accurate extrapolation of average plant data to an entire industry. Instead of doing the extrapolation on a total industry population basis, it may be done on the basis of total populations in each personnel category. These populations could best be determined by sending questionnaires to a large percentage of plants in any given industry.

5. Addition of a third alternative to option 22. At this time option 22 allows the effect of specified noise reductions for any number of equipment types to be calculated. The proposed third alternative would allow the calculation of the effect of introducing maximum noise level specifications for any number of equipment types. This alternative would be particularly useful in evaluating the effect on personnel noise exposure impact of any proposed regulations regarding maximum permissible noise levels for certain equipment types.
6. Inclusion of the ability to take into account different magnitudes of average daily working hours for different personnel categories in the same industry.
7. Capability of looking at the effect of a four day week or variations thereof on the exposure and equipment impacts for a given industry.
8. Provision of an iteration procedure on the equipment impact list which will lead to the determination of minimum noise reduction requirements to obtain compliance with
 - a) EPA criteria and
 - b) OSHA criteria.

The iteration procedure will also have the capability of excluding any equipment for which noise control is impractical or technically not feasible.

9. Establishment of a data bank containing equipment noise reduction cost estimates in dollars per dB for noise reduction on various equipment types and the use of

this data bank to estimate the cost of obtaining compliance in a given industry. In addition to cost data, data will be needed for the estimated total number of items of equipment of each type in each industry. These latter data may be obtained by using a survey questionnaire sent to a certain percentage of plants in each industry.

Eventually the cost and equipment data will be updated on a yearly basis using numerical factors based on rises in the CPI, and industry expansion rate.

10. Finally the program will be stored on disc at the Washington Computer Center for easy access and to alleviate the necessity to read in 3500 cards for each analysis. The program on disc will be accessible using either a low speed teletype/video terminal or a high speed terminal with a card reader and printer.
 - (a) The low speed terminal access will be most suitable for initiating an analysis requiring only the use of data in the data bank.
 - (b) The high speed terminal access will be best for printing results and for initiating jobs which require the addition of data to the data bank or the use of data not yet included in the data bank.
 - (c) Provision will also need to be made to enable the program to be updated as changes or additions are required.

B.4 Program Listing, April 1980

The program consists of a main program and 13 subroutines which are listed in the following pages.

```

      IMPLICIT INTEGER (0)
      REAL LBI,LBINC,LWP,LWPHC,LWPJ,LWPHCJ,LWPN,LWPHCN,JCUE3*8,JCUE
1,MC*8
      COMMON/COSHA/ SMH(10),SLEYWC(10), JDES(5),M(10),M(10),
1MS(10),NEXPWC, JCUE(5),LWPJ(500),LWPN(500),NEXP,LAOU
7,KDATA(5)
      COMMON/EHC/MCODE(5),MNAME(5),IDATE
      COMMON/IOX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
1JTC(150),JTC2(150),AINC,OY,ANTH,EQLV,NEN,NACC
      COMMON/LMIX/LMAX(150),LCUO1(150,10)
      COMMON/EQ1/ALEQ2(500),STDM(500),KNAM1(500,5),JARR(500),JSEQ(500)
      COMMON/EQ2/ALEQ3(500),STDM3(500),KNAME2(500,5),JARR3(500),
1JSEQ3(500)
      COMMON/OD/MAC1(500),MAC2(500),MAC3(500),JCUE2(500),NSC(50)
      COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
      COMMON/ITSDE/ ITST(50),UPT(30),NTST(50)
      COMMON/NHC/LWP(500),LWPHC(500),NT90,NM90,NT75,NM75,NTTU,LSTG(500),
1KSTU(500),LBI(500),LBINC(500),SUM,SUMHC,LNT90,LNT75,LNM90,LNM75,
2ALB2(500),ALB2MC(500),ALVP(500),ALVPHC(500),NUMP(500),JOB(500),
3NSTU(500),NSTO(500),NJ(500),JE,URD(500),JBUESZ(50,5),RSUM,RSUMHC
      COMMON/ISICP/ICS(20),IPS(20,50),IND(20)
      COMMON/IDS1/IDS(500)
      COMMON/NM/NAME(9),JBNJNU,SNAME(50,7),MPL(50),NSIC(50)
      COMMON/NCOM/NOM(10000)
      COMMON/ISORT/KKP(600),KSIZE(600)
      COMMON/ISORD/ URD2(600),MPEOP(600),MOLTI(600)
      DIMENSION MOLT(50), MTYPE(5),MSIZE(5),
1KNAME(5),KTYPE(5),KSIZE(5), JMAC(5),JBDES1(600,5),
2JCUE1(500),JMI(300,10),MJ1(300,10),KN(300),KJU(600),
3LDATA(5), KSI(4(600),ALEQ1(600),
4JDEC(5),KNS(50), MCK1(50),MCR2(50),MATT(50),ALQO(50),
5STO(50),ALQ1(50),STO1(50),KMAC(5), KU1(50),KU2(50),
6JSTO(600),JCUE3(600),BUM(10,30,5)
      DATA KMAC/4H ,4H ,4H ,4H ,4H /
      DATA JMAC/4HNOT ,4HIN L,4HIST ,4HOF E,4HQULP/
      DATA JDEC/4HNOT ,4HIN L,4HIST ,4HOF J,4HQBS /
      DATA LDATA/4HBACK,4H. UN,4HLY L,4HJNTR,4H. /
      DD 2 J=1,5
      KDATA(J)=LDATA(J)
2 CONTINUE
      READ(5,5011) (NAME(J),J=1,9),JBNJNU
      REWIND 11
      REWIND 12
      REWIND 21
      REWIND 31
      REWIND 40
      REWIND 50
      LC=1

```



```

MLN=40
DD 5 11=1,10000
NOM(11)=0
5 CONTINUE
J3=0
OPTST=0
NTP= 11
LC=0
NMB=0
NFNC=11
NFHC=21
NBT=0
NPLT=1
READ(5,5001) (OPT(J),J=1,30)
WRITE(6,6061)
DD 6 1=1,30
IA=OPT(1)+1
WRITE(6,6062) 1,OPT(1)
6 CONTINUE
IF(OPT(22).EQ.0.OR.OPT(27).EQ.0)GO TO 42
WRITE(6,6504)
STOP
42 CONTINUE
C
C READ IN THRESHOLD, 8-HOUR EQUIVALENT PERMISSIBLE LEVEL, AND
C FINALLY THE EXCHANGE RATE, DB PER HALVING OF EXPOSURE TIME
C PRINT THESE VALUES FOLLOWING LIST OF PLANTS
READ(5,5501) ANTH1,EQLV1,NEN1,ANTH2,EQLV2,NEN2,ANTH3,EQLV3,NEN3,
1AINC,NACC
WRITE(6,6514)
WRITE(6,6513)
WRITE(6,6505)
WRITE(6,6501)ANTH1,EQLV1,NEN1
IF(NEN2.EQ.0)GO TO 11
WRITE(6,6513)
WRITE(6,6506)
WRITE(6,6501) ANTH2,EQLV2,NEN2
IF(NEN3.EQ.0)GO TO 11
WRITE(6,6513)
WRITE(6,6507)
WRITE(6,6501)ANTH3,EQLV3,NEN3
11 CONTINUE
IF(OPT( 7).EQ.1)GO TO 30
WRITE(6,6002)
10 READ(5,5002) NSIC(NPLT),NPL(NPLT),ND1(NPLT),ND2(NPLT),ND3(NPLT),
1ND4(NPLT),NPPP(NPLT),(SNAME(NPLT,J),J=1,7)
IF(NSIC(NPLT).EQ.0)GO TO 35
MOLT(NPLT)=1

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```

IF(NSIC(NPLT).LT.1000)MULT(NPLT)=10
IF(NSIC(NPLT).LT. 100)MULT(NPLT)=100
WRITE(6,6005)NSIC(NPLT),NPL(NPLT),ND1(NPLT),ND2(NPLT),ND3(NPLT),
ND4(NPLT),NPPP(NPLT),(SNAME(NPLT,J),J=1,7)
NSIC(NPLT)=NSIC(NPLT)*MULT(NPLT)
NPLT=NPLT+1
GO TO 10
35 NPLT=NPLT-1
WRITE(6,6003) NPLT
GO TO 37
30 READ(5,5002) IUUM,IDUM1,ND1(1),ND2(1),ND3(1),ND4(1),NPPP(1)
WRITE(6,6004) ND1(1),ND2(1),ND3(1),ND4(1),NPPP(1)
37 CONTINUE
DO 40 J=1,30
IF(J.EQ.28.OR.J.EQ.8.OR.J.EQ.21.OR.J.EQ.25)GO TO 40
IF(OPT(J).NE.0.AND.OPT(J).NE.1)GO TO 50
40 CONTINUE
IF(OPT(28).GT.3)GO TO 51
IF(OPT(8).NE.4.AND.OPT(8).NE.5.AND.OPT(8).NE.6)GO TO 52
IF(OPT(25).NE.0.AND.OPT(25).NE.1.AND.OPT(25).NE.2.AND.OPT(25).NE.3
1)GO TO 54
IF(OPT(21).NE.0.AND.OPT(21).NE.1.AND.OPT(21).NE.2)GO TO 56
GO TO 60
50 WRITE(6,6001) J,OPT(J)
STOP 1
51 WRITE(6,6048) OPT(28)
STOP 1
52 WRITE(6,6045) OPT(8)
STOP 1
54 WRITE(6,6046) OPT(25)
STOP 1
56 WRITE(6,6047) OPT(21)
STOP 1
60 IF(OPT(23).NE.0)WRITE(6,6006)
135 READ(5,5003) JC,(JDES(J),J=1,5)
IF(JC.EQ.0)GO TO 165
WRITE(9) JC,(JDES(J),J=1,5)
WRITE(11)JC,(JDES(J),J=1,5)
GO TO 135
165 CONTINUE
END FILE 11
REWIND 11
205 READ(5,5004) MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),(MSIZE(L),L=1,
15)
IF(MB.EQ.0)GO TO 240
WRITE(12)MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),(MSIZE(L),L=1,5)
GO TO 205
240 CONTINUE

```

```

END FILE 12
REWIND 12
JT=0
290 READ(5,5005) KSIC,KPL,JDATE
   IF(KSIC.EQ.0)GO TO 410
   MLT1=1
     IF(KSIC.LT.1000)MLT1=10
     IF(KSIC.LT. 100)MLT1=100
   KSIC=KSIC*MLT1
300 READ(5,5006) JN,JNP,(M(JJ),H(JJ),JJ=1,5)
   IF(JN.EQ.0)GO TO 290
   READ(5,5007) (M(JJ),H(JJ),JJ=6,10)
   JCD=JN+1000*(KSIC/100)
310 READ(11,END=320) JBC,(JDES(J),J=1,5)
   IF(JBC.EQ.JCD)GO TO 340
   GO TO 310
320 DO 330 J=1,5
   JDES(J)=JDEC(J)
330 CONTINUE
340 CONTINUE
   JT=JT+1
   IF(JT.LE.300) GO TO 350
   WRITE(6,6010)
   STOP 3
350 JCODE1(JT)=JN+KPL+1000*KSIC+100000
   MOLT1(JT)=MLT1
   KKP(JT)=JN
   KSIC3(JT)=KSIC/10
   KNI(JT)=JNP
   KJD(JT)=JDATE
   DO 360 J=1,5
   JBDES1(JT,J)=JDES(J)
360 CONTINUE
   DO 370 J=1,10
   JM1(JT,J)=M(J)
   HJ1(JT,J)=H(J)
370 CONTINUE
   REWIND 11
   GO TO 300
410 CALL JOBSRT(JSTU,JT)
415 DO 420 INB=1,JT
   WRITE(NFNC) JCODE1(JSTO(INB)),(JBDES1(JSTO(INB),J),J=1,5),
   1KN(JSTO(INB)),(JM1(JSTO(INB),JJ),HJ1(JSTO(INB),JJ),JJ=1,10),
   2KJO(JSTO(INB)),MOLT1(JSTO(INB))
420 CONTINUE
   JC=0
   END FILE NFNC
   REWIND NFNC

```

```

        IF(NBT.NE.0)GO TO 510
        NBT=1
        NFNC=40
        CALL JUBST1(JSTO,JT,JCODE1)
        GO TO 415
510 CONTINUE
C      WE HAVE NOW READ FROM INPUT OR DATA BANK, THE LOJ DATA,THE LUE DATA
C      AND THE WORKER CATEGORY DATA
C      THIS DATA HAS BEEN STORED ON DISK TEMPORARILY FOR USE IN THIS
C      PROGRAM AND ON MAG TAPE 9 FOR FUTURE USE
C
C      NEXT WE REMEMBER THE DATA BASE FOR EACH LINE OF SIC CODE, PLANT NU
C      DATE DATA
C
        DO 540 I=1,NPLT
        IF(NPL(I).LE.0)GO TO 530
        ITST(I)=4
        NTST(I)=NPL(I)
        GO TO 540
530 NTST(I)=100*(NSIC(I)/100)
        ITST(I)=1
        IF(NTST(I).EQ.NSIC(I).AND.MOLT(I).EQ.100)GO TO 540
        NTST(I)=10*(NSIC(I)/10)
        ITST(I)=2
        IF(NTST(I).EQ.NSIC(I).AND.MOLT(I).EQ. 10)GO TO 540
        ITST(I)=3
        NTST(I)=NSIC(I)
540 CONTINUE
C
C      NEXT WE WRITE OUT LOJ, LQE AND WORKER CATEGORY DATA AS REQUIRED
C      BY THE OPTION CARD
C
        IF(OPT( 9).NE.0)GO TO 580
545 CONTINUE
        WRITE(6,6015) (NAME(J),J=1,9),JBNJND
        WRITE(6,6016)
        IT=1
550 READ(11,END=570) JC,(JDES(J),J=1,5)
        IF(IT.GE.40)GO TO 560
        WRITE(6,6017) JC,(JDES(J),J=1,5)
        IT=IT+1
        GO TO 550
560 WRITE(6,6017) JC,(JDES(J),J=1,5)
        GO TO 545
570 REWIND 11
580 CONTINUE
        IF(OPT(10).NE.0)GO TO 630
590 CONTINUE

```

```

WRITE(6,6015) (NAME(J),J=1,9),JBNJND
WRITE(6,6018)
IT=1
600 READ(12,END=620) MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),(
MSIZE(L),L=1,5)
IF(IT.GE.40)GO TO 610
WRITE(6,6019) MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),(MSIZE(L),L=
11,5)
IT=IT+1
GO TO 600
610 WRITE(6,6019) MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),(MSIZE(L),L=
11,5)
GO TO 590
620 REWIND 12
630 CONTINUE
IT=1
IF(OPT(13).NE.0)GO TO 700
IB=1
KSIC1=0
KPLT1=0
JDATE1=0
680 IF(IT.GT.JT)GO TO 700
KSIC=JCODE1(JSTO(IT))/100000/MOLT1(JSTO(IT))
KPLT=JCODE1(JSTO(IT))/1000-100*(JCODE1(JSTO(IT))/100000)
KJOB=JCODE1(JSTO(IT))-1000*(JCODE1(JSTO(IT))/1000)
JDATE=KJD(JSTO(IT))+1900
IF(KSIC.EQ.KSIC1.AND.KPLT.EQ.KPLT1.AND.JDATE.EQ.JDATE1.AND.IB.LE
1.38)GO TO 690
WRITE(6,6015) (NAME(J),J=1,9),JBNJND
WRITE(6,6020)
IB=1
WRITE(6,6022) KSIC,KPLT,JDATE
WRITE(6,6023)
690 WRITE(6,6024) KJOB,(JBDES1(JSTO(IT),J),J=1,5),KM(JSTO(IT)),
1(JM1(JSTO(IT),JJ),HJ1(JSTO(IT),JJ),JJ=1,3)
IB=IB+1
KX=JM1(JSTO(IT),4)
IF(KX.EQ.0)GO TO 695
IB=IB+1
WRITE(6,6051)(JM1(JSTO(IT),JJ),HJ1(JSTO(IT),JJ),JJ=4,6)
KY=JM1(JSTO(IT),7)
IF(KY.EQ.0)GO TO 695
IB=IB+1
WRITE(6,6051)(JM1(JSTO(IT),JJ),HJ1(JSTO(IT),JJ),JJ=7,9)
KZ=JM1(JSTO(IT),10)
IF(KZ.EQ.0)GO TO 695
IB=IB+1
WRITE(6,6051) JM1(JSTO(IT),10),HJ1(JSTO(IT),10)

```

```

695 CONTINUE
    WRITE(6,6052)
    KSIC1=KSIC
    KPLT1=KPLT
    JDATE1=JDATE
    IB=IB+1
    IT=IT+1
    GO TO 680
700 CONTINUE
C   NOW WE READ EQUIPMENT DATA FROM INPUT AND DATA BANK AND STORE IT
C   ON FILE FOR USE IN THIS PROGRAM
C
730 JM=0
    KJB=0
    LD=0
740 READ(5,5005) KSIC,KPL,KU
    IF(KSIC.EQ.0)GO TO 820
    MLT1=1
    IF(KSIC.LT.1000)MLT1=10
    IF(KSIC.LT. 100)MLT1=100
    KSIC=KSIC*MLT1
750 READ(5,5008) MJC,ALEQ,LCODE(J),DEC(J),J=1,3)
    IF(MJC.EQ.0)GO TO 740
760 READ(12,END=770) MB ,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),
    L(MSIZE(L),L=1,5)
    IF(MB .EQ.MJC)GO TO 740
    GO TO 760
770 DO 780 J=1,5
    MNAME(J)=JMAC(J)
    MTYPE(J) =KMAC(J)
    MSIZE(J) =KMAC(J)
780 CONTINUE
790 CONTINUE
    JM=JM+1
    IF(JM.LE.600)GO TO 800
    WRITE(6,6013)
    STOP 3
800 CONTINUE
    JCHK(JM)=0
    IF(LCODE(1).EQ.0) GO TO 805
    KJB=KJB+1
    DO 802 J=1,3
    LCD1(KJB,J)=LCODE(J)
    DCD1(KJB,J)=DEC(J)
802 CONTINUE
    JCHK(JM)=KJB
805 CONTINUE
    JCODE3(JM)=DFLOAT(MJC+KPL*10000)+DFLOAT(KSIC)*100000.0

```

```

      KKP(JM)=MJC
      KSIC4(JM)=KSIC
      MOLT1(JM)=MLT1
      KJD(JM)=KD
      ALEQ1(JM)=ALEQ
      DO 810 J=1,5
      JBDES1(JM,J)=MNAME(J)
810  CONTINUE
      REWIND 12
      GO TO 750
820  CONTINUE
      CALL JOBST1(JSTO,JM,KKP)
      WRITE(6,6052)
825  DO 830 INB=1,JM
      LD=JCHK(JSTO(INB))
      IF(LD.EQ.0) GO TO 827
      DO 826 J=1,3
      LCODE(J)=LCD1(LD,J)
      DEC(J)=DCD1(LD,J)
826  CONTINUE
      GO TO 829
827  CONTINUE
      DO 828 J=1,3
      LCODE(J)=0
      DEC(J)=0.0
828  CONTINUE
829  CONTINUE
      WRITE(NFMC) JCODE3(JSTO(INB)),(JBDES1(JSTO(INB),J),J=1,5),
      LALEQ1(JSTO(INB)),(LCODE(J),DEC(J),J=1,3),KJD(JSTO(INB))
      1,MOLT1(JSTO(INB))
830  NC=0
      END FILE NFMC
      REWIND NFMC
      IF(NMB.NE.0)GO TO 930
      NMB=1
      NFMC=40
      CALL JOBST3(JSTO,JM,JCODE3)
      GO TO 825
930  CONTINUE
C
C   WE HAVE NOW READ FROM INPUT OR DATA BANK, THE EQUIPMENT DATA WHICH
C   HAS BEEN STORED TEMPORARILY ON DISK FOR USE IN THIS PROGRAM
C
C   NOW WE CALCULATE ANY NOISE REDUCTION DATA AND STORE IT ON
C   DISK AND THEN WRITE ALL OUR MACHINE DATA ON TAPE 9
C   WE NOW READ GENERALISED MACHINE DATA IF SO REQUIRED
      NSUB=0
      IF((UPT(24).EQ.0)GO TO 708

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```

      IF(OPT(7).NE.0)NSUB=1
      LC=1
      WRITE(6,6576)
702 CONTINUE
      READ(5,5010) MAC1(LC),MAC2(LC),MAC3(LC),(JBDES2(LC,J),J=1,5),
1          KD1(LC),KD2(LC),NSC(LC)
      IF(MAC1(LC).EQ.0)GO TO 704
      JCODE2(LC)=1
      IF(NSC(LC).LT.1000)JCODE2(LC)=10
      IF(NSC(LC).LT. 100)JCODE2(LC)=100
      WRITE(6,6577) MAC1(LC),MAC2(LC),MAC3(LC),(JBDES2(LC,J),J=1,5)
      LC=LC+1
      GO TO 702
704 CONTINUE
      LC=LC-1
708 CONTINUE
C   READ IN EQUIPMENT CODES WHICH ARE TO BE CONSIDERED TOGETHER IN A
C   NOISE REDUCTION ITERATION PROCEDURE.READ IN AFTER LIST OF PLANTS
C   MAXIMUM OF 100 LINES OF DATA WITH A MAXIMUM OF 10 ITEMS IN EACH
C   IF(OPT(27).EQ.0)GO TO 34
      IF(OPT(30).EQ.0)GO TO 34
      WRITE(6,6502)
      OY=0
38 CONTINUE
      OY=OY+1
      READ(5,5502) LMAX(OY),(LCOD1(OY,J),J=1,10)
      IF(LMAX(OY).EQ.0)GO TO 941
      LJ=LMAX(OY)
      WRITE(6,6503) (LCOD1(OY,J),J=1,LJ)
6503 FORMAT(12X,10(14,2X))
      GO TO 38
941 CONTINUE
      OY=OY-1
39 CONTINUE
      IF(OPT(22).EQ.0)GO TO 1030
      WRITE(6,6071)
      LK=1
940 READ(5,5009) MCR1(LK),MCR2(LK),MATT(LK)
      IF(MCR1(LK).EQ.0)GO TO 950
      WRITE(6,6072) MCR1(LK),MCR2(LK),MATT(LK)
      LK=LK+1
      GO TO 940
950 LK=LK-1
      LB=0
955 READ(11,END=990) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1J=1,3),IDATE
1,MLT1
      MCDD=IDINT(MC-10000.0)*DFLOAT(IDINT(MC/10000.0))+0.1)

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IF(LCODE(1).EQ.0) GO TO 965
INDEX=0
DO 975 LA=1,LK
DO 977 J=1,3
IF(LCODE(J).LT.MCR1(LA).OR.LCODE(J).GT.MCR2(LA)) GO TO 977
INDEX=1
DEC(J)=DEC(J)/10.0** (MATT(LA)/10.0)
977 CONTINUE
IF(INDEX.EQ.0) GO TO 975
ALEQ=10.0*ALOG10(DEC(1)*10.0** (ALEQ/10.0)
1+DEC(2)*10.0** (ALEQ/10.0)+DEC(3)*10.0** (ALEQ/10.0))
DECTOT=DEC(1)+DEC(2)+DEC(3)
DO 978 J=1,3
DEC(J)=DEC(J)/DECTOT
978 CONTINUE
975 CONTINUE
GO TO 985
965 CONTINUE
DO 960 LA=1,LK
IF(MCDD.GE.MCR1(LA).AND.MCDD.LE.MCR2(LA)) GO TO 970
960 CONTINUE
GO TO 985
970 CONTINUE
ALEQ=ALEQ-MATT(LA)
985 WRITE(12) MC,(MNAME(J),J=1,5),ALEQ, (LCODE(J),DEC(J),J=1,3)
1,IDATE,MLT1
GO TO 955
990 END FILE 12
REWIND 12
REWIND 11
1030 CONTINUE
LB=1
C WE ARE NOW READY TO WRITE THE EQUIPMENT DATA EXCLUDING THE GENERALISED
C DATA ON TO MAG TAPE 9
LF=0
LT=11
1085 READ(LT,END=1160) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1J=1,3),IDATE
1,MLT1
WRITE(9) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1J=1,3),IDATE
1,MLT1
GO TO 1085
1160 CONTINUE
REWIND LT
MC=0.
WRITE(9) MC,(MNAME(J),J=1,5),ALEQ, (LCODE(J),DEC(J),J=1,3),
1IDATE

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1,MLT1
IF(LT.EQ.40)GO TO 1170
LT=40
LB=1
GO TO 1085
1170 CONTINUE
END FILE 9
C WE CAN NOW WRITE OUT THE EQUIPMENT INPUT DATA AND DATA BANK DATA
C AS REQUIRED
C
IF(OPT(11).NE.0)GO TO 1200
KSIC1=0
KPLT1=0
JDATE1=0
JJB=0
IB=1
IT=0
ICT=0
IDST=0
1180 CONTINUE
IT=IT+1
IF(IT.GT.JM) GO TO 1182
KSIC=KSIC+(JSTO(IT))
KPLT=IDINT(JCODE3(JSTO(IT))/10000.0)-KSIC*100
KSIC=KSIC/MOLT1(JSTO(IT))
JDATE=KJD(JSTO(IT))+1900
IF(JCHK(JSTO(IT)).EQ.0) GO TO 1185
JJB=JJB+1
JTC(JJB)=JSTO(IT)
1185 CONTINUE
IF(KSIC.EQ.KSIC1.AND.KPLT.EQ.KPLT1.AND.JDATE.EQ.JDATE1.AND.IB.LE
1.40)GO TO 1190
IF(KSIC1.EQ.0)GO TO 1187
IF(JCHK(JSTO(IT)).EQ.0)GO TO 1182
JJB=JJB-1
IT=IT-1
IDST=1
C NOW WRITE OUT BACKGROUND DATA.
1182 CONTINUE
IF(JJB.EQ.0)GO TO 1188
JJ=1
1183 CONTINUE
WRITE(6,6015) (NAME(J),J=1,9),JBNJND
IB=1
WRITE(6,6026)
WRITE(6,6022) KSIC1,KPLT1,JDATE1
WRITE(6,6028)
K=JJ

```

```
DD 1189 JJ=K,JJB
IB=IB+1
JH=JTC(JJ)
KJB=JCHK(JH)
WRITE(6,6629) KKP(JH),(JBDES1(JH,J),J=1,5),
IALEQ1(JH),(LCD1(KJB,J),DCD1(KJB,J),J=1,3)
IF(1B.GT.40) GO TO 1183
1189 CONTINUE
1188 CONTINUE
JJB=0
IF(1T.GT.JH) GO TO 1200
1187 CONTINUE
WRITE(6,6015) (NAME(J),J=1,9),JBNJND
WRITE(6,6026)
IB=1
WRITE(6,6022) KSIC,KPLT,JDATE
WRITE(6,6028)
IF(1CT.EQ.0) GO TO 1190
1CT=0
GO TO 1180
1190 CONTINUE
KSIC1=KSIC
KPLT1=KPLT
JDATE1=JDATE
IF(JCHK(JSTO(1T)).NE.0) GO TO 1180
IF(1DST.EQ.0) GO TO 1191
1DST=0
GO TO 1180
1191 CONTINUE
KMCC=KKP(JSTO(1T))
WRITE(6,6029) KMCC,(JBDES1(JSTO(1T),J),J=1,5),ALEQ1(JSTO(1T))
IB=IB+1
IF(1B.LT.40) GO TO 1180
1CT=1
GO TO 1187
1200 CONTINUE
C
C WE HAVE NOW WRITTEN OUT EQUIPMENT DATA
C
OPTST=0
NTP=11
1245 NPLT1=1
IF(OPT(7).NE.0) GO TO 1250
NPLT1=NPLT
1250 KBT=0
IF(OPT(23).EQ.1) NPLT1=1
NTST3=0
JADD=1
```

```

NTST1=0
NTST2=0
LADD=1
NDT1=0
NDT2=0
LKTST=0
ALEQ=0
KTST2=1
KTST1=500000
DO 2000 I=1,NPLT1
ANTH=ANTH1
EOLY=EOLV1
NEN=NEN1
NTRIC=0
1252 CONTINUE
DO 1255 IJ=1,100
JCHK(IJ)=0
JTC(IJ)=0
JTC2(IJ)=0
1255 CONTINUE
DO 1256 IJ=101,600
JCHK(IJ)=0
1256 CONTINUE
NOP=0
MSUP=0
MKSIC=100*(NSIC(I)/100)
1260 CONTINUE
NDT1=ND1(I)
NDT2=ND2(I)
1262 IF(OPT(7).NE.0)GO TO 1265
KTST1=NTST(I)
KTST2=ITST(I)
1265 READ(NTF,END=1280) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1J=1,3),IDATE
1,MLT1
IF(ND1(I).EQ.0)GO TO 1270
IF(IDATE.GE.ND1(I).AND.IDATE.LE.ND2(I))GO TO 1270
GO TO 1265
1270 CONTINUE
MCOE(1)=IDINT(MC/10000000.0)*MLT1
MCOE(2)=IDINT(MC/1000000.0)*MLT1
MCOE(3)=IDINT(MC/100000.0)
MCOE(4)=IDINT(MC/1000.0)-MCOE(3)+100
MCOE(5)=IDINT(MC-1000.0*DFLOAT(IDINT(MC/10000.0)))+0.1)
MCOED=IDINT(MC/10000000.0)*100
MCOE(3)=IDINT(MC/100000.0)*MLT1
IF(OPT(7).EQ.0)GO TO 1275
GO TO 1330

```

```
1275 CONTINUE
    IF(MCODE(4).EQ.0.AND.MCODEU .EQ.MKSIC)GO TO 1320
    IF(OPT(23).EQ.0)GO TO 1281
    DO 1282 J=1,NPLT
    KTST1=NTST(J)
    KTST2=ITST(J)
    IF(KTST1.EQ.MCODE(KTST2)) GO TO 1330
1282 CONTINUE
    GO TO 1283
1281 CONTINUE
    IF(KTST1.EQ.MCODE(KTST2)) GO TO 1330
1283 CONTINUE
    GO TO 1265
1280 REHIND NTP
    IF(NOP.EQ.1)GO TO 1310
    NOP=NOP+1
    IF(KTST2.EQ.4)GO TO 1290
    WRITE(6,6030)KTST1
    GO TO 1300
1290 WRITE(6,6031)KTST1
1300 CONTINUE
    NDI(I)=0
    NDI=0
    GO TO 1265
1310 WRITE(6,6032)
    GO TO 2000
1320 CONTINUE
    MSOP=1
1330 CONTINUE
    KCOD=LCODE(1)
    KADD=0
    IF(KCOD.EQ.0)LAOD=0
    IF(KCOD.EQ.0)GO TO 1335
    DO 1332 J=1,3
    DCD1(LADD,J)=DEC(J)
    LCD1(LADD,J)=LCODE(J)
    IF(LCODE(J).NE.0)KADD=KADD+1
1332 CONTINUE
1335 CONTINUE
    CALL ZC(JADD,LKTST,NDT1,KBT,NTST1,NTST2,ALEQ,NTP,NDT2,KTST1,KTST2,
    LLADD,KCOD,MKSIC,MSOP,NTST3,KADD,NPLT)
    NOP=0
    REHIND NTP
    J8D=JADD
    DO 1336 JT=1,J8D
    IF(JCHK(JT).EQ.0)GO TO 1336
    KADD=JTC(JCHK(JT))
    DO 1337 JU=1,KADD
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KF=NOM(LCD1(JCHK(JT),JU))
IF(KF.NE.0)GO TO 1337
JADD=JADD+1
KF=JADD
NUM(LCD1(JCHK(JT),JU))=KF
ALEQ2(KF)=10.0*ALOG10(DCD1(JCHK(JT),JU))+ALEQ2(JT)
STDAH(KF)=STDAH(JT)
JARR(KF)=LCD1(JCHK(JT),JU)
JCHK(KF)=0
DO 1338 JV=1,5
KNAM1(KF,JV)=KDATA(JV)
1338 CONTINUE
1337 CONTINUE
1336 CONTINUE
1400 KKI=I
LCC=LC
NPLTI=I
IF(OPT(23).EQ.1)NPLTI=NPLT
JMAX=JADD+LC
JBL=JMAX
NBT=0
C NOM WE CALL ROUTINE TO CALCULATE PERSONNEL AND EQUIPMENT IMPACTS
JA=0
CALL HCI(KKI,NPLTI,JMAX,JA,OPTST,IZ,NPLT,NTOT,JBL,NTP,MKSIC,LCC
1,NTRIC)
IF(OPTST.EQ.1)GO TO 1590
IF(OPT(22).NE.0)GO TO 1510
NTRIC=NTRIC+1
IF(OPT(28).LE.1)GO TO 1410
ANTH=ANTH2
EQLV=EQLV2
NEN=NEN2
IF(OPT(28).EQ.2.AND.NTRIC.LT.2)GO TO 1400
IF(OPT(28).EQ.3.AND.NTRIC.EQ.1)GO TO 1400
ANTH=ANTH3
EQLV=EQLV3
NEN=NEN3
IF(OPT(28).EQ.3.AND.NTRIC.LT.3)GO TO 1400
1410 CONTINUE
DO 1500 IJ=1,10000
NOM(IJ)=0
1500 CONTINUE
JADD=1
LADD=1
RENIND 11
GO TO 2000
1510 CONTINUE
OPTST=1

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```
NTP=12
IF(OPT(19).NE.0.AND.OPT(15).NE.0)GO TO 1583
IF(OPT(19).NE.0)GO TO 1580
C NOW WE WRITE FIRST PASS DATA ON FILE
IF(OPT(20).NE.0)GO TO 1580
IF(OPT(21).EQ.2)GO TO 1560
DO 1550 IJ=1,JA
WRITE(50) L81(LSTO(IJ)),L81MC(LSTO(IJ)),LWP(LSTO(IJ)),LWPMC(LSTO
1(IJ)),LSTO(IJ)
1550 CONTINUE
IF(OPT(21).EQ.1)GO TO 1561
1560 DO 1570 IJ=1,JA
WRITE(50) L81(KSTO(IJ)),L81MC(KSTO(IJ)),LWP(KSTO(IJ)),LWPMC(KSTO
1(IJ)),KSTO(IJ)
1570 CONTINUE
1581 CONTINUE
IF(OPT(21).EQ.2)GO TO 1582
DO 1572 IJ=1,JE
WRITE(50) AL82(MSTO(IJ)),AL82MC(MSTO(IJ)),ALVP(MSTO(IJ)),
1ALVPMC(MSTO(IJ)),MSTO(IJ)
1572 CONTINUE
IF(OPT(21).EQ.1)GO TO 1580
1582 CONTINUE
DO 1575 IJ=1,JE
WRITE(50) AL82(MSTO(IJ)),AL82MC(MSTO(IJ)),ALVP(MSTO(IJ)),
1ALVPMC(MSTO(IJ)),MSTO(IJ)
1575 CONTINUE
1580 CONTINUE
END FILE 50
REWIND 50
1583 CONTINUE
LADD=1
JADD=1
REWIND 11
DO 1586 IJ=1,10000
NOM(IJ)=0
1586 CONTINUE
IF(OPT(28).EQ.0)GO TO 1585
IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1585
LNT90=NEXP
LNH90=NEXPNC
GO TO 1262
1585 CONTINUE
RSUM=SUM
RSMHC=SUMHC
LNT90=NT90
LNH90=NH90
LNT75=NT75
```

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LNM75=NM75
GO TO 1262
1590 CONTINUE
      REWIND NTP
      CALL WRITE3 (IZ,KKI,NTOT,NPLT,JA,JMAX,LC,NTRIC)
1800 CONTINUE
      DO 1810 IJ=1,10000
      NOM(IJ)=0
1810 CONTINUE
      OPTST=0
      LADD=1
      JADD=1
      NTP=11
      REWIND 11
      REWIND 12
      REWIND 50
      NTRIC=NTRIC+1
      IF(OPT(28).LE.1)GO TO 2000
      ANTH=ANTH2
      EQLV=EQLV2
      NEN=NEN2
      IF(OPT(28).EQ.2.AND.NTRIC.LT.2)GO TO 1252
      IF(OPT(28).EQ.3.AND.NTRIC.EQ.1)GO TO 1252
      ANTH=ANTH3
      EQLV=EQLV3
      NEN=NEN3
      IF(OPT(28).EQ.3.AND.NTRIC.LT.3)GO TO 1252
2000 CONTINUE
2800 CONTINUE
5001 FORMAT(30I1)
5002 FORMAT(I4,1X,I2,1X,I2,1X,I2,1X,I2,1X,I2,1X,16,1X,7A4)
5003 FORMAT(I5,1X,5A4)
5004 FORMAT(I4,1X,15A4)
5005 FORMAT(I4,1X,I2,1X,I2)
5006 FORMAT(I3,16X,I4,5(I4,F6.1))
5007 FORMAT(23X,5(I4,F6.1))
5008 FORMAT(I6,20X,F5.1,2X,3(I4,1X,F4.1,1X))
5009 FORMAT(I4,2X,I4,2X,I2)
5010 FORMAT(3(I4,1X),5X,5A4,5X,10X,I2,2X,I2,2X,I4)
5011 FORMAT(9A4, 16)
5051 FORMAT(21X,10A4)
5501 FORMAT(3(2F5.1,15),F5.1,15)
5502 FORMAT(2X,I2,10(I4,1X))
6001 FORMAT(/12X, 7HOPTION ,11,23H MUST EQUAL ONE OR ZERO/12X,
128HAT THIS TIME IT IS EQUAL TO ,15/)
6002 FORMAT(1H1/////12X,54HLIST OF PLANTS AND/OR SIC CODES REQUESTED F
10R THIS RUN// 12X, 8HSIC CODE,2X,9HPLANT NO.,2X,10HSTART DATE,2X,
210H END DATE ,2X,10HSTART DATE,2X,8HMENU DATE,2X,8HTUT. NO.,2X,

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328H PLANT DESCRIPTION ,/33X,
 310HFOR EQUIP.,2X,10HFOR EQUIP.,2X,10HFOR PERS.,2X,8HFOR PERS,2X,
 48HOF PERS.1

6003 FORMAT(/12X,64HTHE TOTAL NUMBER OF PLANTS AND/OR SIC CODES TO BE C
 UNSIDERED IS , 12)

6004 FORMAT(1H1//12X,69HTHIS RUN CONSIDERS ALL DATA CONTAINED IN THE DA
 1TA BANK, ALL SIC CODES/12X,27HSTART DATE FOR EQUIPMENT = ,12/12X,
 225HEND DATE FOR EQUIPMENT = ,12/12X,30HSTART DATE FOR WORKER CATS.
 3 = ,12/12X,28HEND DATE FOR WORKER CATS. = ,12/12X,25HTOTAL NUMBER
 4OF WORKERS = ,16//)

6005 FORMAT(14X,14,8X,12,9X,12,10X,12,10X,12,9X,12,6X,16,3X,7A4)

6006 FORMAT(12X,53HTHIS RUN AVERAGES OVER ALL CHOSEN SIC CODES OR PLANT
 1S)

6007 FORMAT(12X,24HTHERE IS NO DATA SO STOP)

6008 FORMAT(//12X,36HERROR - THERE IS NO LOJ DATA SO STOP)

6009 FORMAT(//12X,36HERROR - THERE IS NO LOE DATA SO STOP)

6010 FORMAT(//12X,67HPLEASE DONT SUBMIT MORE THAN300 LINES OF PERSONNEL
 1 DATA AT ONE TIME)

6013 FORMAT(//12X,65HPLEASE DONT SUBMIT MORE THAN 600 LINES OF EQUIP. D
 1ATA AT ONE TIME)

6014 FORMAT(//12X,41HTHERE IS NO PERSONNEL HOURLY DATA SO STOP)

6015 FORMAT(1H1 //12X,9A4,17X,12HBBN JOB NO. ,16//)

6016 FORMAT(41X,12HLIST OF JOBS//12X,3HJOB,9X,15HJOB DESCRIPTION/12X,
 14HCODE/)

6017 FORMAT(12X,15,8X,5A4)

6018 FORMAT(38X,17HLIST OF EQUIPMENT//12X,6HEQUIP.,4X,12HGENERIC NAME,
 1 9X,4HTY E,17X14HSIZE#CON IT#ON/13X,4 CODE/)

6019 FORMAT(13X,14,5X,5A4,1X,5A4,1X,5A4)

6020 FORMAT(31X,32HINPUT PERSONNEL WORK ASSIGNMENTS/)

6021 FORMAT(29X,36HDATA BANK PERSONNEL WORK ASSIGNMENTS/)

6022 FORMAT(12X,9HSIC CODE:,1X,14,17X,10HPLANT NO: ,12,17X,6HDATE: ,
 114//)

6023 FORMAT(12X,4H JOB,3X,20HJOB DESCRIPTION ,2X, 5HNO OF,4X,
 131HTIME SPENT USING EQUIPMENT CODE/12X,4HCODE,25X,5HPERS.,2X,
 24HCODE,2X,4HTIME,2X,4HCODE,2X,4HTIME,2X,4HCODE,2X,4HTIME/1

6024 FORMAT(12X,14,3X,5A4,2X,15,2X,14,1X,F5.1,2X,14,1X,F5.1,2X,14,1X,
 1F5.1)

6025 FORMAT(/12X,34HTHERE IS NO EQUIPMENT DATA SO STOP/)

6026 FORMAT(25X,20HINPUT EQUIPMENT DATA/)

6027 FORMAT(23X,24HDATA BANK EQUIPMENT DATA/)

6028 FORMAT(12X,6HEQUIP., 8X,12HGENERIC NAME,10X,5H LEQ /12X,6H CODE ,
 130X,5H DBA /)

6029 FORMAT(13X,14,9X,5A4,2X,F5.1)

6030 FORMAT(/12X,31HNO EQUIPMENT DATA FOR SIC CODE ,14,1X,
 118HIN SPECIFIED DATES/12X,26HNOX RELAX DATE RESTRICTION)

6031 FORMAT(/12X,33HNO EQUIPMENT DATA FOR PLANT CODE ,12,1X,
 118HIN SPECIFIED DATES/12X,26HNOX RELAX DATE RESTRICTION)

6032 FORMAT(/12X,52HTHERE IS NO EQUIPMENT DATA AT ALL FOR THE ABOVE COD

```

1E1
6033 FORMAT(1H1//)
6045 FORMAT(//12X,28HOPTION 8 MUST EQUAL 2,3 OR 4/12X,28HAT THIS TIME I
IT IS EQUAL TO ,I4)
6046 FORMAT(//12X,31HOPTION 25 MUST EQUAL 0,1,2 OR 3/12X,28HAT THIS TIM
IE IT IS EQUAL TO ,I4)
6047 FORMAT(//12X,29HOPTION 21 MUST EQUAL 0,1 OR 2/12X,28HAT THIS TIME
LIT IS EQUAL TO ,I4)
6048 FORMAT(//12X,31HOPTION 28 MUST EQUAL 0,1,2 OR 3//)
6051 FORMAT(46X,3(2X,I4,1X,F5.1))
6052 FORMAT(1X)
6061 FORMAT(1H1///12X,13HOPTION NUMBER,6X,12HOPTION VALUE/)
6062 FORMAT(17X,I2,17X,I2,11X,10A4)
6071 FORMAT(1H1/////25X,26MINPUT NOISE REDUCTION DATA//
120X,35HEACH LINE SHOWS THE NOISE REDUCTION/
.215X,45HSPECIFICATIONS FOR A RANGE OF EQUIPMENT CODES//
318X,8HCODE FOR,12X,8HCODE FOR,9X,5HNOISE/
413X,18HBEGINNING OF RANGE,5X,12HEND OF RANGE,5X,9HREDUCTION/)
6072 FORMAT(20X,I4,16X,I4,13X,I2)
6115 FORMAT(1H1/////12X,9A4)
6501 FORMAT( 22X,17HANALYSIS CRITERIA//12X,18HTHRESHOLD LEVEL = ,
IF5.1,4H DBA/12X,38H8-HOUR EQUIVALENT PERMISSIBLE LEVEL = ,F5.1,
24H DBA/12X,50HEXCHANGE RATE (DB PER HALVING OF EXPOSURE TIME) = ,
311 ,4H DBA)
6502 FORMAT(1H1/////12X,59HLIST OF EQUIPMENT CODES WHICH ARE TO BE CON
SIDERED TOGETHER/12X,42HIN THE NOISE REDUCTION ITERATION PROCEDURE
2/)
6504 FORMAT(//12X,43HOPTION 22 AND OPTION 27 CANNOT BOTH EQUAL 1)
6505 FORMAT(28X,5HFIRST)
6506 FORMAT(28X,6HSECOND)
6507 FORMAT(28X,5HTHIRD)
6513 FORMAT(/////)
6514 FORMAT(1H1/////)
6576 FORMAT(1H1/////20X,35HLIST OF GENERALIZED EQUIPMENT CODES//
1 13X,4HCODE,7X,5HBEGIN,5X,4H END,5X,19HGENERAL D
2DESCRIPTION/)
6577 FORMAT(13X,I4,7X,I4,6X,I4,5X,5A4)
6626 FORMAT(36X,21MINPUT BACKGROUND DATA/)
6627 FORMAT(34X,24HDATA BANK EQUIPMENT DATA/)
6628 FORMAT(12X,5HBACK.,1X,12HGENERAL NAME,8X,5H LEQ , 2X,36HEQUIPMENT
CONTRIBUTION TO BACKGROUND/12X,5HCODE ,21X,5H DBA ,2X,4HCODE,1X,
26HCONTR.,2X,4HCODE,1X,6HCONTR.,2X,4HCODE,1X,6HCONTR./)
6629 FORMAT(12X,I4,2X,5A4,F5.1,2X,3(I4,2X,F4.2,3X))
STOP
END

```

```

SUBROUTINE ZC ( JADD, LKTST, NDT1, KBT, NTST1, NTST2, ALEQ, NTP, NDT2,
1 KTST1, KTST2, LAUD, KCOD, MKSIC, MSUP, NTST3, KADD, NPLT )
  IMPLICIT INTEGER (0)
  REAL*8 MC
  DIMENSION MNAME2(5)
  COMMON/IDX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
1 JTC(150),JTC2(150),AINC,DY,ANTH,EQLV,NEN,NACC
  COMMON/EMC/MCODE(5),MNAME(5),IDATE
  COMMON/NCOM/NOM(10000)
  COMMON/EQ1/ALEQ2(500),STDAH(500),KNAH1(500,5),JARR(500),JSEQ(500)
  COMMON/ITSDE/ ITST(50),OPT(30),NTST(50)

```

C
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THIS SUBROUTINE CALCULATES AVERAGE LEQS FOR EQUIPMENT DATA

```

SUM=ALEQ
I=1
STD=ALEQ**2
LKTST=0
MCO=MCODE(5)
DO 5 J=1,5
  MNAME2(J)=MNAME(J)
5 CONTINUE
10 READ(NTP,END=60) MC,(MNAME(J),J=1,5),ALEQ, (LCODE(J),DEC(J),
1 J=1,3),IDATE
  MLT1
  MCODED=IDINT(MC/10000000.0)*100
  MCODE(1)=IDINT(MC/10000000.0)*MLT1
  MCODE(2)=IDINT(MC/1000000.0)*MLT1
  MCODE(3)=IDINT(MC/100000.0)
  MCODE(4)=IDINT(MC/10000.0)-MCODE(3)*100
  MCODE(5)=IDINT(MC-10000.0*DFLOAT(IDINT(MC/10000.0)))+0.1)
  MCODE(3)=IDINT(MC/1000000.0)*MLT1
  IF(OPT(7).EQ.1.AND.NTST1.EQ.0.AND.MCO.EQ.MCODE(5))GO TO 40
  IF(OPT(23).EQ.0)GO TO 11
  DO 12 J=1,NPLT
    KTST1=NTST(J)
    KTST2=ITST(J)
    IF(MCO.EQ.MCODE(5).AND.KTST1.EQ.MCODE(KTST2))GO TO 40
  12 CONTINUE
  GO TO 13
  11 CONTINUE
  IF(MCO.EQ.MCODE(5).AND.KTST1.EQ.MCODE(KTST2))GO TO 40
  13 CONTINUE
  IF(MCODE(5).GE.NTST1.AND.MCODE(5).LE.NTST2)GO TO 40
  IF(MCODE(5).EQ.NTST3)GO TO 40
  IF(MCODE(4).EQ.0.AND.MCODED .EQ.MKSIC.AND.MCO.EQ.MCODE(5))GO TU40
  IF(MCO.EQ.MCODE(5))GO TO 10
17 ALEQ2(JADD)=SUM/FLOAT(I)

```

```
JARK(JADD)=MCO
JSEQ(JADD)=I
NOM(MCO)=JADD
IF(KCOD.EQ.0) GO TO 19
DO 181 I J=1,KADD
DCD1(LADD,I J)=DCD1(LADD,I J)/FLOAT(I)
181 CONTINUE
JCHK(JADD)=LADD
JTC(LADD)=KADD
JTC2(LADD)=JADD
GO TO 19
18 CONTINUE
I=1
JADD=JADD+1
IF(JADD.LE.500) GO TO 182
WRITE(6,6601)
182 CONTINUE
MCO=MCODE(5)
KCOD=LCODE(1)
SUM=ALEQ
STD=ALEQ**2
IF(MCODE(4).EQ.0)MSOP=1
DO 38 J=1,5
MNAME2(J)=MNAME(J)
38 CONTINUE
IF(LCODE(1).EQ.0) GO TO 10
LADD=LADD+1
KADD=0
DO 190 J=1,3
IF(LCODE(J).EQ.0)GO TO 192
KADD=KADD+1
LCD1(LADD,KADD)=LCODE(J)
DCD1(LADD,KADD)=DEC(J)
190 CONTINUE
192 CONTINUE
IF(LADD.LE.100) GO TO 183
WRITE(6,6602)
STOP
183 CONTINUE
GO TO 10
19 CONTINUE
IF(I.EQ.1)GO TO 20
DIFF=STD*FLOAT(I)-SUM*SUM
IF(DIFF.LE.0.00001)GO TO 20
STDAM(JADD)=SQRT((STD*FLOAT(I)-SUM*SUM)/FLOAT(I*(I-1)))
GO TO 30
20 STDAM(JADD)=0.0
30 CONTINUE
```

```

DO 35 J=1,5
KNAM1(JADD,J)=MNAMEZ(J)
35 CONTINUE
IF(LKTST.EQ.1.OR.KBT.EQ.1)GO TO 70
24 IF(NDT1.EQ.0)GO TO 21
IF(IDATE.GE.NDT1.AND.IDATE.LE.NDT2)GO TO 21
GO TO 23
21 IF(OPT(7).EQ.1)GO TO 18
22 CONTINUE
IF(OPT(23).EQ.0)GO TO 41
DO 42 J=1,NPLT
KTST1=NTST(J)
KTST2=ITST(J)
IF(KTST1.EQ.MCODE(KTST2))GO TO 18
42 CONTINUE
GO TO 43
41 CONTINUE
IF(KTST1.EQ.MCODE(KTST2))GO TO 18
43 CONTINUE
IF(MCODE(4).EQ.0.AND.MCODED .EQ.MXSIC)GO TO 18
23 CONTINUE
READ(NP,END=70)MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1J=1,3),IDATE
1,MLT1
MCODED=IDINT(MC/10000000.0)*100
MCODE(1)=IDINT(MC/10000000.0)*MLT1
MCODE(2)=IDINT(MC/10000000.0)*MLT1
MCODE(3)=IDINT(MC/100000.0)
MCODE(4)=IDINT(MC/10000.0)-MCODE(3)+100
MCODE(5)=IDINT(MC-10000.0*DFLOAT(IDINT(MC/10000.0))+0.1)
MCODE(3)=IDINT(MC/100000.0)*MLT1
GO TO 24
40 IF(NDT1.EQ.0)GO TO 50
IF(IDATE.GE.NDT1.AND.IDATE.LE.NDT2)GO TO 50
GO TO 10
50 CONTINUE
IF(MCODE(4).NE.0.AND.MSUP.EQ.0)GO TO 80
IF(MCODE(4).EQ.0.AND.MSUP.EQ.1)GO TO 80
IF(MCODE(4).EQ.0)GO TO 10
SUM=ALEQ
STD=ALEQ**2
I=1
MSUP=0
GO TO 10
80 SUM=SUM+ALEQ
STD=STD+ALEQ**2
I=I+1
IF(LCODE(1).EQ.0)GO TO 10

```

```
MBD=1
KBD=MAX0(KADD,MBD)
DO 85 J=1,3
IF(LCODE(J).EQ.0)GOTO 10
DO 87 JK=1,KBD
IF(LCODE(J).EQ.LCD1(LADD,JK)) GO TO 88
87 CONTINUE
KADD=KADD+1
IF(KADD.LE.20) GO TO 184
WRITE(6,6603) MCODE(5)
STOP
184 CONTINUE
LCD1(LADD,KADD)=LCODE(J)
DCD1(LADD,KADD)=DEC(J)
GO TO 85
88 DCD1(LADD,JK)=DCD1(LADD,JK)+DEC(J)
85 CONTINUE
GO TO 10
60 LKTST=1
GO TO 17
70 CONTINUE
REWIND NTP
6601 FORMAT(///12X,37HTUO MANY DIFFERENT ITEMS OF EQUIPMENT/12X,
139HCHANGE ARRAY SIZE AND SOME PROGRAM CODE/)
6603 FORMAT(///12X,42HNUMBER OF CONTRIBUTORS TO BACKGROUND CODE ,14,
11X,10HEXCEEDS 15/12X,32HCHANGE SOME CODE AND ARRAY SIZES/)
6602 FORMAT(///12X,30HTDU MANY DIFFERENT BACKGROUNDS/12X,
132HCHANGE SOME CODE AND ARRAY SIZES/)
RETURN
END
```

```

SUBROUTINE MCI(I,NPLTI,JMAX,JA,OPTST,IR,NPLT,NTST,JBL,NTP,MKSIC,LC
IA,NTRIC)
IMPLICIT INTEGER (I)
REAL LBI,LBINC,LWP,LWPHC,LWPJ,LWPHCJ,LWPN,LWPHCN,LIJ,LIJHC,KCC=0
L,JCODE2*8
COMMON/COSHA/ SMH(10),SLEVHC(10), JDES(5),M(10),M(10),
IHS(10),NEXPHC, JCODE(5),LWPJ(500),LWPN(500),NEXP,LADU
7,KDATA(5)
COMMON/LMIX/LMAX(150),LC001(150,10)
COMMON/IOX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
LIJC(150),JTC2(150),AINC,UY,ANTH,EQLV,NEN,NACC
COMMON/EQ1/AEQ2(500),STDAN(500),KNAM1(500,5),JARR(500),JSEQ(500)
COMMON/EQ2/AEQ3(500),STDM3(500),KNAME2(500,5),JARR3(500),JSEQ3(50
10)
COMMON/ITSDE/ITST(50),OPT(30),NTST(50)
COMMON/NH/NAME(9),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
COMMON/OD/MAC1(500),MAC2(50),MAC3(50),JCODE2(50),MSC(50)
COMMON/NCON/NOM(10000)
COMMON/NHC/LWP(500),LWPHC(500),NT90,NM90,NT75,NM75,NTTD,LSTO(500),
IKSTO(500),LBI(500),LBINC(500),SUM,SUMHC,LNT90,LNT75,LNH90,LNH75,
ZALB2(500),ALB2HC(500),ALVP(500),ALVPHC(500),NUMP(500),JUBC(500),
JNSTO(500),MSTO(500),NJ(500),JE,URD(500),JBDES2(50,5),RSUM,RSUMHC
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/EHC/MCQUE(5),MNAME(5),IDATE
COMMON/ISICP/ILS(20),IPS(20,50),IND(20)
COMMON/ISORD/ DRQ2(600),NPEOP(600),MOLT1(600)

```

C
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WRITE RELEVANT DATA FOR BURKER CATEGORIES FROM FILE 21 TO FILE 40

```

BTST=0
IB=0
IF(OPTST.EQ.1)GO TO 85
IF(NTRIC.NE.0)GO TO 85
IF(OPT(7).EQ.0)GO TO 30
10 READ(21,END=20) JC,(JDES(J),J=1,5),JNP,(M(JJ),M(JJ),JJ=1,10),
I,MLT1
I,MLT1
IB=IB+1
NPEOP(IB)=JC
IF(OPT(26).EQ.0)GO TO 27
DU 25 IC=1,LCA
DO 26 IL=1,10
IF(M(IL).GE.MAC2(IC).AND.M(IL).LE.MAC3(IC))M(IL)=MAC1(IC)
26 CONTINUE
25 CONTINUE
27 CONTINUE
WRITE(40) JC,(JDES(J),J=1,5),JNP,(M(JJ),M(JJ),JJ=1,10),JDATE
I,MLT1

```

```

GO TO 10
20 END FILE 40
REWIND 40
REWIND 21
GO TO 80
30 READ(21,END=20) JC,(JDES(J),J=1,5),JNP,(M(JJ),H(JJ),JJ=1,10),
1JDATE
1,MLT1
IF(OPT(26).EQ.0)GO TO 37
DO 35 IC=1,LCA
DO 36 IL=1,10
IF(M(IL).GE.MAC2(IC).AND.M(IL).LE.MAC3(IC))M(IL)=MAC1(IC)
36 CONTINUE
35 CONTINUE
37 CONTINUE
JCDE(1)=JC/10000000*MLT1
JCDE(2)=JC/1000000*MLT1
JCDE(3)=JC/100000
JCDE(4)=JC/1000-JCDE(3)*100
JCDE(5)=JC-1000*(JC/1000)
JCDE(3)=JC/100000*MLT1
DO 70 JI=1,NPLTI
IF(NTST(JI).NE.JCDE(ITST(JI))) GO TO 70
IF(ND3(JI).EQ.0)GO TO 40
IF(JDATE.LT.ND3(JI).OR.JDATE.GT.ND4(JI))GO TO 70
GO TO 40
70 CONTINUE
GO TO 30
40 CONTINUE
IB=IB+1
NPEUP(1B)=JC
MOLT1(1B)=MLT1
WRITE(40) JC,(JDES(J),J=1,5),JNP,(M(JJ),H(JJ),JJ=1,10),JDATE
1,MLT1
GO TO 30
80 CONTINUE
CALL JOBST1(ORD2,IB,NPEUP)
CALL NPSC(IR,NTOT,1B)
CALL SORTWC(NPLT,NTOT,1,IR,OPTST)
85 CONTINUE
IF(INTRIC.NE.0.AND.OPT(22).EQ.0)GO TO 1500
C
C NUM WRITE OUT EQUIPMENT AVERAGED DATA
C
LX=0
JMZ=JBL-LCA
CALL JOBST2(ORD2,JMZ,ALC42)
LCD=0

```



```

LD=JMAX-LCA+1
IF(UPT(24).EQ.0)GO TO 1400
DU 760 IH=LD,JMAX
JSEQ(IH)=0
JARR(IH)=0
STDAM(IH)=0.0
ALEQ2(IH)=0.0
760 CONTINUE
DU 710 IZ=1,LCA
J6=0
MSK=NSIC(I)/JCODE2(IZ)
IF(NSC(IZ).EQ.MSK)GO TO 702
JMAX=JMAX-1
LCD=LCD+1
GO TO 710
702 CONTINUE
MAC1(IZ-LCD)=MAC1(IZ)
MAC2(IZ-LCD)=MAC2(IZ)
MAC3(IZ-LCD)=MAC3(IZ)
JIZ=JMZ+IZ
DO 705 LZ=1,JMZ
IF(JCHK(LZ).NE.0)GO TO 705
IF(JARR(LZ).LE.MAC3(IZ).AND.JARR(LZ).GE.MAC2(IZ))GO TO 700
IF(JARR(LZ).EQ.MAC1(IZ))GO TO 700
GO TO 705
700 CONTINUE
JSEQ(JIZ)=JSEQ(JIZ)+JSEQ(LZ)
ALEQ2(JIZ)=ALEQ2(JIZ)+ALEQ2(LZ)+JSEQ(LZ)
STDAM(JIZ)=STDAM(JIZ)+STDAM(LZ)+2*(JSEQ(LZ)-1)
J6=J6+1
705 CONTINUE
DU 706 J=1,5
KNAM1(JIZ,J)=JBDES2( IZ,J)
706 CONTINUE
JARR(JIZ)=MAC1(IZ)
IF(JSEQ(JIZ).EQ.0)GO TO 710
ALEQ2(JIZ)=ALEQ2(JIZ)/JSEQ(JIZ)
IF(NOM(MAC1(IZ)).NE.0)ALEQ2(NOM(MAC1(IZ)))=0.0
NOM(MAC1(IZ))=JIZ
IF(J6.EQ.JSEQ(JIZ).OR.STDAM(JIZ).EQ.0)GO TO 710
STDAM(JIZ)=SQRT(STDAM(JIZ)/(JSEQ(JIZ)-J6))
710 CONTINUE
LCA=LCA-LCD
JMAX=JMAX-LCD
JBL=JBL-LCD
JMZ=JBL-LCA
1400 NBT=0
IF(UPT(15).EQ.1)GO TO 1490
1410 CONTINUE

```

```

NLN=40
IF(UPTST.EQ.1)GO TO 1415
WRITE(6,6102) (NAME(J),J=1,9),JBNJNU
GO TO 1417
1415 CONTINUE
WRITE(6,6202) (NAME(J),J=1,9),JBNJNU
1417 CONTINUE
IF(UPTST.EQ.0)GO TO 1420
NLN=NLN-2
WRITE(6,6120)
1420 CALL WRITE1(IR, 1,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6103)
C NOW WRITE OUT LIST
N2T=0
DO 1450 IL=1,45
N2T=N2T+1
NBT=NBT+1
IF(NBT.GT.JM2)GO TO 1440
ORD2(NBT)=ORD2(NBT)+LX
IF(ALEQ2(ORD2(NBT)).EQ.0.0.UR.JARR(ORD2(NBT)).EQ.1000)GO TO 1426
WRITE(6,6104) JARR(ORD2(NBT)),(KNAM1(ORD2(NBT),J),J=1,5),JSEQ(ORD2
1(NBT)),ALEQ2(ORD2(NBT)),STDAM(ORD2(NBT))
GO TO 1427
1426 CONTINUE
N2T=N2T-1
1427 CONTINUE
IF(UPTST.EQ.1.UR.OPT(22).EQ.0.UR.OPT(17).EQ.1)GO TO 1425
WRITE(50) ALEQ2(ORD2(NBT)),STUAR(ORD2(NBT)),ORD2(NBT)
1425 CONTINUE
IF(N2T.GE.NLN)GO TO 1410
1450 CONTINUE
1490 CONTINUE
IF(UPT(24).EQ.0)GO TO 1500
IF(UTST.EQ.1)GO TO 1500
UTST=1
DO 1510 IW=1,LCA
ALEQ3(IW)=ALEQ2(IW+JM2)
STUM3(IW)=STDAM(IW+JM2)
IF(ALEQ3(IW).EQ.0.)ALEQ3(IW)=FLUAT(IW)/1.E+9
1510 CONTINUE
LX=JM2+LCO
JM2=LCA
CALL JOBST2(ORD2,LCA,ALEQ3)
IF(OPT(15).EQ.1)GO TO 1500
GO TO 1400
1500 CONTINUE
IF(OPT(25).EQ.0.UR.OPT(25).EQ.1)GO TO 90
WRITE(6,6001) OPT(25)

```

```

      STUP 6
90  CONTINUE
      IF(UPT(28).EQ.0)GO TO 88
      IF(UPT(28).EQ.2.AND.NTRIC.EQ.0)GO TO 88
      IF(UPT(28).EQ.3.AND.NTRIC.EQ.0)GO TO 88
      CALL OSHA(LCA,NTP,JBL,NPLT,I,NPLT),MKSIC,JMAX,JA,OPTST,IR,NTOT)
      RETURN
88  CONTINUE
      JA=0
      SUM=0.0
      SUMC=0.0
      NT7=0
      NT9=0
      NPUP=NPPP(I)
      NTU=0
      NW7=0
      NW9=0
      JMZ=JMAX-LCA
100 REAO(31,END=240) KCC,(JES(I),J=1,5),(M(I),H(I),HS(I),JJ=1,10)
      L,NPRS
      IF(NPRS.EQ.0)GO TO 100
      CDT=0.0
      IF(M(I).EQ.0)GO TO 100
      IK=1
      SLEV=0.0
      DO 130 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 130
      SHM(IJ)=M(IJ)
      KJ=NOM(M(IJ))
      IF(KJ.NE.0)GO TO 110
      SLEVHC(IJ)=0.0
      GO TO 130
110 CONTINUE
      SLEVHC(IJ)=ALEQ2(KJ)
      IF(ALEQ2(KJ).LE.SLEV)GO TO 130
      SLEV=ALEQ2(KJ)
      IK=IJ
130 CONTINUE
C   NUM RENORMALISE MUUKS
135 CONTINUE
      DU 160 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 160
      KJ=NOM(M(IJ))
      IF(IJ.EQ.IK)GO TO 140
      GO TO 150
140 CONTINUE
      SLEVHC(IJ)=ALEQ2(KJ)+STOAM(KJ)
      SHM(IJ)=M(IJ)+MS(IJ)

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```

150 CTOT=CTOT+SMH(IJ)
160 CONTINUE
165 CONTINUE
    DO 170 IJ=1,10
    IF(M(IJ).EQ.0)GO TO 175
    SMH(IJ)=SMH(IJ)/CTOT
170 CONTINUE
175 CONTINUE
    JA=JA+1
    LBI(JA)=1.E-6
    LBIMC(JA)=0.0
    DO 230 IJ=1,10
    IF(M(IJ).EQ.0)GO TO 231
    KJ=NOM(M(IJ))
    IF(KJ.EQ.0)GO TO 230
    IF(KNAME1(KJ,3).EQ.KDATA(3))GO TO 230
    IF(M(IJ).EQ.1000)GO TO 230
215 CONTINUE
    LIJHC=          SMH(IJ)*10.0**((SLEVHC(IJ)/10.0)*OPT(8)/4.0
    LIJ=            M(IJ)*10.0**((ALEQ2(KJ)/10.0)*OPT(8)/4.0
    LBI(JA)=LBI(JA)+LIJ
    LBIMC(JA)=LBIMC(JA)+LIJHC
230 CONTINUE
231 CONTINUE
    IF(LBI(JA).LT.0.0001)GO TO 233
    LBIMC(JA)=10.0*ALUG10(LBIMC(JA))
    LBI(JA)=10.0*ALUG10(LBI(JA))
    IF(LBI(JA).GE.75.0)GO TO 232
233 CONTINUE
    LMP(JA)=LBI(JA)/1000000.0
    GO TO 234
232 MH=0.025*(LBI(JA)-75.0)**2
    LMP(JA)=NPRS*MH
    SUM=SUM+LMP(JA)
    MT75=MT75+NPRS
234 IF(LBIMC(JA).GE.75.0)GO TO 236
    LMPHC(JA)=LBIHC(JA)/1000000.0
    GO TO 237
236 MHHC=0.025*(LBIMC(JA)-75.0)**2
    LMPHC(JA)=NPRS*MHHC
    SUMHC=SUMHC+LMPHC(JA)
    MH75=MH75+NPRS
237 DO 238 J=1,5
    KNAME2(JA,J)=JDES(J)
238 CONTINUE
    JSEQ3(JA)=NPRS
    NTTU=NTTU+NPRS
    JAXR3(JA)=IDINT(KCC-10000.0*DFLOAT(IDINT(KCC/100000.0))+0.1)

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```

      IF(L81(JA).GT.90.0)NT90=NT90+NPKS
      IF(L81HC(JA).GT.90.0)NH90=NH90+NPKS
      GO TO 100
240 CONTINUE
      IF(UPT(25).NE.1)GO TO 248
      DO 245 IJ=1,JA
      LHP(IJ)=LHP(IJ)*NPOP/NTTU
      LHPHC(IJ)=LHPHC(IJ)*NPOP/NTTU
      JSEQ3(IJ)=JSEQ3(IJ)*(FLOAT(NPOP)/FLOAT(NTTU))+1.E-8}
245 CONTINUE
248 CONTINUE
      NTTT=NTTU
      IF(UPT(25).NE.1)GO TO 250
      SUM=SUM*NPOP/FLOAT(NTTU)
      SUMHC=SUMHC*NPOP/FLOAT(NTTU)
      NT90=NT90*NPOP/NTTU
      NH90=NH90*NPOP/NTTU
      NT75=NT75*NPOP/NTTU
      NH75=NH75*NPOP/NTTU
      NTTU=NPOP
250 CONTINUE
      REWIND 31
C
C CALL ROUTINE TO RANK ORDER LHP ARRAY IN DESCENDING ORDER IF IT IS
C REQUIRED TO WRITE OUT WORKER CATEGORY DATA
      IF(UPTST.EQ.1)GO TO 255
      CALL JOBST2(LST0,JA,LWP)
      CALL JOBST2(KST0,JA,L81)
C
C NOW WRITE OUT PERSONNEL NOISE EXPOSURE AND IMPACT DATA
C
255 IF(UPT(19).NE.0)GO TO 300
      NB =0
260 CONTINUE
      NLN=40
      WRITE(6,6110) (NAME(I),I=1,4),JBNJNU
      WRITE(6,6210)
      IF(UPTST.EQ.0)GO TO 265
      NLN=NLN-2
      WRITE(6,6120)
265 CALL WRITE1(IR,I,ND3,ND4,NTUT,NPLT,NLN)
      WRITE(6,6108)
      NOW WRITE OUT LIST
      NZT=0
      DO 270 IL=1,45
      NZT=NZT+1
      NB =NB +1
      IF(NB .GT. JA)GO TO 280
      LC=INT(LHP(LST0(NB)))

```

```

LH=INT(LHPNC(LSTO(NB)))
IF(LB1(LSTO(NB)).LT.75.0.AND.LBINC(LSTO(NB)).LT.75.0)GO TO 266
IF(LB1(LSTO(NB)).LT.75.0)GO TO 267
WRITE(6,6109) JARR3(LSTO(NB)),(KNAME2(LSTO(NB),J),J=1,5),
JSEQ3(LSTO(NB)),LB1(LSTO(NB)),LBINC(LSTO(NB)),LC,LH
GO TO 269
266 WRITE(6,6301) JARR3(LSTO(NB)),(KNAME2(LSTO(NB),J),J=1,5),
JSEQ3(LSTO(NB)),LC,LH
GO TO 269
267 WRITE(6,6302) JARR3(LSTO(NB)),(KNAME2(LSTO(NB),J),J=1,5),
JSEQ3(LSTO(NB)),LBINC(LSTO(NB)),LC,LH
269 CONTINUE
IF(INZT.GE.NLN)GO TO 260
270 CONTINUE
280 CONTINUE
DO 590 JZ=1,JA
JOBG(JZ)=JARR3(JZ)/100
NMP(JZ)=0
ALB2(JZ)=0.
ALVP(JZ)=0.
ALB2MC(JZ)=0.
ALVPMC(JZ)=0.
590 CONTINUE
JB=0
DO 595 JZ=1,JA
IF(LB1(JZ).LE.65.0)LB1(JZ)=65.0
IF(LBINC(JZ).LE.65.0)LBINC(JZ)=65.0
595 CONTINUE
DO 600 JZ=1,JA
IF(JOBG(JZ).EQ.0)GO TO 600
NAV=0
JB=JB+1
JOBG(JB)=JOBG(JZ)
NJ(JB)=JZ
DO 640 IZ=JZ,JA
IF(JOBG(IZ).NE.JOBG(JB))GO TO 640
IF(JB.EQ.IZ)GO TO 610
JOBG(IZ)=0
610 CONTINUE
NMP(JB)=NMP(JB)+JSEQ3(IZ)
ALB2(JB)=ALB2(JB)+LB1(IZ)*JSEQ3(IZ)
ALB2MC(JB)=ALB2MC(JB)+LBINC(IZ)*JSEQ3(IZ)
NAV=NAV+JSEQ3(IZ)
ALVP(JB)=ALVP(JB)+LHP(IZ)
ALVPMC(JB)=ALVPMC(JB)+LHPNC(IZ)
640 CONTINUE
IF(NAV.EQ.0)GO TO 615
ALB2(JB)=ALB2(JB)/NAV

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ALB2HC(JB)=ALB2HC(JB)/NAV
GO TO 600
615 CONTINUE
ALB2(JB)=0.
ALB2HC(JB)=0.
600 CONTINUE
CALL JOBST2(MSTU,JB,ALVP)
CALL JOBST2(MSTU,JB,ALB2)
NB=0
660 CONTINUE
NLN=40
WRITE(6,6112) (NAME(J),J=1,9),JBNJNU
WRITE(6,6210)
IF(UPTST.EQ.0)GO TO 665
NLN=NLN-2
WRITE(6,6120)
665 CALL WRITE1(IR,1,ND3,ND4,NTOT,NPLT,NLN)
WRITE(6,6108)
C NOW WRITE OUT LIST
N2T=0
DO 670 IL=1,45
N2T=N2T+1
NB =NB +1
IF(NB .GT. JB)GO TO 680
LC=INT(ALVP(MSTU(NB)))
LM=INT(ALVPHC(MSTU(NB)))
IF(ALB2(MSTU(NB)).LT.75.0.AND.ALB2HC(MSTU(NB)).LT.75.0)GO TO 666
IF(ALB2(MSTU(NB)).LT.75.0)GO TO 667
WRITE(6,6109) JOBC(MSTU(NB)),(KNAME2(INJ(MSTU(NB)),J),J=1,5),
LNUP(MSTU(NB)),ALB2(MSTU(NB)),ALB2HC(MSTU(NB)),LC,LM
GO TO 669
666 WRITE(6,6301) JOBC(MSTU(NB)),(KNAME2(INJ(MSTU(NB)),J),J=1,5),
LNUP(MSTU(NB)),LC,LM
GO TO 669
667 WRITE(6,6302) JOBC(MSTU(NB)),(KNAME2(INJ(MSTU(NB)),J),J=1,5),
LNUP(MSTU(NB)),ALB2HC(MSTU(NB)),LC,LM
669 CONTINUE
IF(N2T.GE.NLN)GO TO 660
670 CONTINUE
680 CONTINUE
300 CONTINUE
JE= JB
C WRITE OUT TOTAL WORKER EXPOSURE
IF(UPT(19).EQ.1)GO TO 676
IF(N2T.LE.23)GO TO 679
678 CONTINUE
WRITE(6,6112) (NAME(J),J=1,9),JBNJNU
WRITE(6,6210)

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      IF(UPTST.EQ.1)WRITE(6,6120)
      CALL WRITE1(IR,I,ND3,ND4,NTUT,NPLT,NLN)
679  CONTINUE
      WRITE(6,6130)
302  WRITE(6,6131) NTTU,NT75,NH75,NT90,NH90,SUM,SUMML
C    INITIALISE ARRAYS
C
      DO 810 KKK=1,2
      DO 305 KJ=1,JMAX
      LWPJ(KJ)=0.0
      LWPN(KJ)=0.
      NPEUP(KJ)=0
305  CONTINUE
      IF(OPT(16).NE.0.AND.OPT(17).NE.0)GO TO 400
      BUM=0.0
      JB=0
      LKDT=0
310  READ(31,END=360) KCC,(JUES(J),J=1,5),(M(JJ),H(JJ),HS(JJ),JJ=1,10),
      INPRS
      IF(INPRS.EQ.0)GO TO 310
      IF(M(1).EQ.0)GO TO 310
      IF(UPT(25).EQ.1)NPRS=NPRS+NPOP/NTTT
      JB=JB+1
      DO 350 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 310
      IF(M(IJ).EQ.100)GO TO 350
      KJ=NOM(M(IJ))
      IF(KNAM1(KJ,3).NE.KDATA(3).AND.KJ.NE.0)GO TO 320
      WRITE(6,6002) M(IJ)
      GO TO 350
320  CONTINUE
      ALJ=          M(IJ)*10.0*(ALEQ2(KJ)/10.0)*OPT(8)/4.0
      IF(LB1(JB).LE.75)GO TO 336
      NPEUP(KJ)=NPEUP(KJ)+NPRS
      HPJ=  NPRS*ALJ/10.0*(LB1(JB)/10.0)
      IF(KKK.EQ.2)WPJ=(HPJ/NPRS)*LWP(JB)
      IF(JCHK(KJ).EQ.0)GO TO 325
      KAUD=JTC(JCHK(KJ))
      DO 326 J=1,KAUD
      IF(LCD1(JCHK(KJ),J).EQ.100)GO TO 326
      KF=NOM(LCD1(JCHK(KJ),J))
      HPX=HPJ*DCD1(JCHK(KJ),J)
      BUM=BUM+HPX
      LWPJ(KF)=LWPJ(KF)+HPX
      NPEUP(KF)=NPEUP(KF)+NPRS
326  CONTINUE
      GO TO 336
325  CONTINUE

```



```

N2T=0
DU 390 IL=1,45
NB =NB +1
N2T=N2T+1
ORD2(NB)=ORD2(NB)+LX
IF(NB .GT. JMOZ)GO TO 395
IF(NPEOP(ORD2(NB)).EQ.0)GO TO 395
CMLJ=ALEQ2(ORD2(NB))+STDM(ORD2(NB))
AC= LWPJ(ORD2(NB))
WRITE(6,6107) JARK(ORD2(NB)),(KNAM1(ORD2(NB),J),J=1,5),JSEU(ORD2(N
1B)),ALEQ2(ORD2(NB)),CMLJ,NPEOP(ORD2(NB)),AC, LMPN(ORD2(NB))
IF(N2T.GE.NLN)GO TO 382
390 CONTINUE
395 CONTINUE
IF(UPT(24).EQ.0)GO TO 400
IF(UTST.EQ.1)GO TO 400
UTST=1
C CALCULATE NUMBER OF PEOPLE TO WRITE IN DATA AVERAGES
LD=JMAX-LCA+1
DO 510 IZ=1,LCA
DO 505 LZ=1,JMZ
IF(JCHK(LZ).NE.0)GO TO 505
IF(JARK(LZ).LE.MAC3(IZ).AND.JARK(LZ).GE.MAC2(IZ))GO TO 500
IF(JARK(LZ).EQ.MAC1(IZ))GO TO 500
GO TO 505
500 CONTINUE
LWPJ(IZ+JMZ)=LWPJ(IZ+JMZ)+LWPJ(LZ)
LMPN(IZ+JMZ)=LMPN(IZ+JMZ)+LMPN(LZ)
NPEUP(IZ+JMZ)=NPEUP(IZ+JMZ)+NPEUP(LZ)
505 CONTINUE
510 CONTINUE
DO 410 IH=1,LCA
IF(LMPJ(IH+JMZ).LT.1.E-3)LMPJ(IH+JMZ)=ALEQ2(IH+JMZ)*1.E-12
L*FLUAT(IH)+1.E-15
STDM3(IH)=LMPJ(IH+JMZ)
410 CONTINUE
LX=JMZ
JMZ=LCA
JMUZ=LCA
CALL JUBST2(ORD2,LCA,STDM3)
GO TO 380
6001 FORMAT(//12X,11HOPTION 2 = ,11.1X,27HHAS NOT BEEN PROGRAMMED YET/
1 9X,21HTRY OPTION 2 = 0 OR 1)
6002 FORMAT(//12X,27HNO DATA FOR EQUIPMENT CODE ,14)
6130 FORMAT(//)
6131 FORMAT(//12X,70H*****
1***** ,//12X,25HTOTAL NUMBER OF PERSONNEL,26X,16,/
212X,46HTOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN), 5X,16/

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312X,46MTOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (M.C.), 5X,16/
412X,46MTOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN), 5X,16/
512X,46MTOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.), 5X,16/
612X,32HLEVEL WEIGHTED POPULATION (MEAN),18X,F9.1/
712X,32HLEVEL WEIGHTED POPULATION (M.C.),18X,F9.1//
812X,70H*****
9*****
0102 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16//22X,50HBACKGRUUN
LD AND EQUIPMENT NOISE DATA AVERAGES (LEQ))
0103 FORMAT(12X,6HEQUIP.,7X,16H GENERIC NAME ,6X,7HNU. OF ,6X,
18H MEAN ,6X,5HSTU. ,/12X,6H CODE , 29X,7HSAMPLES,6X,8HLEQ(DBA),
26X,5HDEV. //)
0104 FORMAT(13X,14,7X,5A4,4X,14, 9X,F5.1,7X,F5.2)
0105 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16,
120X,14HALTERNATIVE = ,12,
2//36X,22HEQUIPMENT NOISE IMPACT/)
0106 FORMAT(12X,6HEQUIP.,3X,17H EQUIPMENT ,3X,5HNU.OF,3X,
14HMEAN,3X,4HM.C.,3X,5HNU.OF,2X, 6HPRIORITY,1X,5HNUK.M./
2 12X,6H CODE ,3X,17H DESCRIPTION ,3X,5HUNITS,
33X,4H LJ ,3X,4H LJ ,3X,5HPERS.,3X,5HINDEX,3X,4HP.1//)
0107 FORMAT(13X,14,4X,5A4,14,3X,F5.1,2X,F5.1,1X,16,1X,F8.1,1X,F6.3)
0108 FORMAT(13X,3HJOB,3X,20H JOB DESCRIPTION ,3X, 6HNU. OF,3X,
112HSOUND LEVEL, 4X,14MLEV. WT. POP. ,/12X,4HCODE,26X,6HPERS. ,
24X,5HMEAN ,2X,5HM.C. ,3X,6H MEAN ,2X,6H M.C. //)
0109 FORMAT(11X,15,5X,5A4,16, 4X,F5.1,2X,F5.1,2X,17,1X,17)
0110 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16//29X,35HPERSONNEL
1 NOISE EXPOSURE AND IMPACT/)
0120 FORMAT(26X,41HAFTER NOISE CONTRL ON SELECTED EQUIPMENT/)
0301 FORMAT(11X,15,5X,5A4,16, 4X,5H<75.0,2X,5H<75.0,2X,17,1X,17)
0302 FORMAT(11X,15,5X,5A4,16, 4X,5H<75.0,2X,F5.1 ,2X,17,1X,17)
0202 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16//24X,47HEQUIPMENT
1 NOISE DATA AVERAGES (LEQ) GENERALIZED/)
0111 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16,
120X,14HALTERNATIVE = ,12,
2//29X,31HEQUIPMENT NOISE IMPACT AVERAGES/)
0112 FORMAT(1H1 //12X,9A4,15X,12HBBN JOB NO. ,16//25X,44HPERSONNEL
1 NOISE EXPOSURE AND IMPACT AVERAGES/)
0210 FORMAT(40X,12HEPA CRITERIA/)
400 CONTINUE
810 CONTINUE
RETURN
END

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```

SUBROUTINE SORTHC(NPLT,NTOT,KI,IZ,UPTST)
IMPLICIT INTEGER (J)
REAL*8 JCODE,KCC,KH*4
DIMENSION JDES(5),KDES(5),M(10),H(10),KM(10),MX(200,10),NP(200),
1STUN(200,10),HN(200,10),CNUKM(200,10),SNUKM(200,10),JCODE(200),LTS
1T(200),KH(10)
COMMON/ITSDE/ITST(50),UPT(30),NTST(50)
COMMON/ISICP/ LCS(20),IPS(20,50),INU(20)
COMMON/NCOM/NGM(10000)
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/NN/NAME(9),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
C THIS SUBROUTINE SURTS WORKER CATEGORIES INTO SUBCATEGORIES AND
C AVERAGES UP TO A 3 DIGIT SIC CODE
LF=0
C READ THE FIRST LINE OF DATA BANK DATA
1=0
JTST=ITST(KI)
IF(UPT(23).EQ.0)GO TO 20
JTST=10
DO 10 IP=1,NPLT
JTST=MINO(JTST,ITST(IP))
10 CONTINUE
20 CONTINUE
READ(40) JCO,(JDES(J),J=1,5),JNP,(M(JJ),H(JJ),JJ=1,10),JDATE
1,MLT1
IF(JNP.EQ.0)GO TO 20
JC=JCO-1000 *(JCU/1000)
JCI=JCU/1000000
60 READ(40,END=80)KCO,(KDES(J),J=1,5),KNP,(KM(JJ),KH(JJ),JJ=1,10),
1JDATE
1,MLT1
IF(KNP.EQ.0)GO TO 60
KC=KCO-1000*(KCU/1000)
KCI=KCU/1000000
GO TO 70
80 LF=1
REWIND 40
70 IF(1.EQ.0)GO TO 150
C
C TEST TO SEE IF ANY PREVIOUS MACHINE COMBINATIONS ARE SIMILAR TO
C THE CURRENT ONE
C
DO 110 K=1,1
DO 120 J=1,10
DO 130 L=1,10
IF(M(J).EQ.0.AND.MX(K,J).NE.0)GO TO 110
IF( H(J).EQ.MX(K,L))GO TO 140
130 CONTINUE

```

```

      GO TO 110
140 CONTINUE
120 CONTINUE
      GO TO 180
110 CONTINUE
150 I=I+1
      LTST(I)=1
      NP(I)=JNP
C   NOW NORMALISE THE H(J)
      HXTOT=0.0
      DO 160 L=1,10
      HXTOT=HXTOT+H(L)
160 CONTINUE
      DO 170 L=1,10
      HN(I,L)=H(L)*JNP/HXTOT
      STDN(I,L)=(HN(I,L)**2)/JNP
      MX(I,L)=H(L)
170 CONTINUE
      JCODE(I)=DFLOAT(JC1)*100000000.0+JL*100+I-1
      IF(JTST.EQ.4)JCODE(I)=DFLOAT(JCU)*100.0+I-1
      IF(JTST.EQ.3)JCODE(I)=JL*100+I-1+(1000000.0*DFLOAT(JCU/100000))
      GO TO 205
C
C   WE NOW COMBINE TWO BLOCKS OF DATA CONTAINING THE SAME EQUIPMENT
C   NORMALISE THE NEWLY ACQUIRED DATA FIRST
C
180 HXTOT=0.0
      DO 190 L=1,10
      HXTOT=HXTOT+H(L)
190 CONTINUE
      DO 270 J=1,10
      DO 280 L=1,10
      IF(H(J).EQ.0)GO TO 200
      IF(H(J).NE.MX(K,L))GO TO 280
      GO TO 290
280 CONTINUE
      GO TO 270
290 HN(K,L)=HN(K,L)+H(J)*JNP/HXTOT
      STDN(K,L)=STDN(K,L)+(H(J)/HXTOT)**2*JNP
270 CONTINUE
200 CONTINUE
      LTST(K)=LTST(K)+1
      NP(K)=NP(K)+JNP
205 CONTINUE
      IF(LF.EQ.1)GO TO 230
      JCU=KCU
      JNP=KNP
      DO 210 L=1,10

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```

      M(L)=KM(L)
      M(L)=KH(L)
210 CONTINUE
      IF(JC.EQ.KC.AND.JC1.EQ.KC1)GO TO 60
230 CONTINUE
C   CALCULATE STATISTICAL DATA FOR WORKER CATEGORY UNDER CONSIDERATION
C
      DO 340 JG=1,J
      J=I-JG+1
      ANP=FLDAT(NP(J))
      CTOT=0.0
      DO 250 L=1,10
      CTOT=CTOT+HN(J,L)/ANP
250 CONTINUE
      DO 260 L=1,10
      CNORM(J,L)=HN(J,L)/(ANP*CTOT)
260 CONTINUE
      IF(LTST(J).EQ.1)GO TO 460
      DO 470 L=1,10
      FUNCT=(ANP*STDN(J,L)-HN(J,L)*HN(J,L))/(ANP*(ANP-1.0))
      IF(FUNCT.LE.1.E-10)GO TO 460
      SNORM(J,L)=SORT(FUNCT)/CTOT
      GO TO 470
465 CONTINUE
      SNORM(J,L)=0.0
470 CONTINUE
      GO TO 300
480 CONTINUE
      DO 490 L=1,10
      SNORM(J,L)=0.0
490 CONTINUE
300 CONTINUE
      WRITE(J1) JCODE(J),(JDES(L),L=1,5),(MX(J,LL),CNORM(J,LL),
      1SNORM(J,LL),LL=1,10),NP(J)
340 CONTINUE
      IF(LF.EQ.1)GO TO 350
      JC=KC
      JC1=KC1
      JCU=KC0
      I=0
      DO 345 L=1,5
      JDES(L)=KDES(L)
345 CONTINUE
      GO TO 60
350 CONTINUE
      END FILE 31
      REWIND 31

```

C

```

C   NUM WRITE OUT PERSONNEL WORK ASSIGNMENT AVERAGES
C
      IF(OPTST.EQ.1)GO TO 400
      IF(OPT(18).NE.0)GO TO 400
355  WRITE(6,6002) (NAME(J),J=1,9),JBNJND
      WRITE(6,6001)
      NLN=40
      CALL WRITE1(I2,K1,  NDJ,  ND4,NTOT,NPLT,NLN)
      NLT=NLN-5
      WRITE(6,6003)
C   NUM WRITE OUT LIST
      NZT=0
      DO 360 IL=1,45
      READ(31,END=390) KCC,(JDES(L),L=1,5),(M(LL),H(LL),KM(LL),LL=1,10)
      ,NPPS
      NZT=NZT+1
      M(L)=M(L)*8.0
      KM(L)=KM(L)*8.0
      JD=IDINT(KCC-100000.0*DFLOAT(IDINT(KCC/100000.0))+0.1)
      WRITE(6,6004) JD,(JDES(L),L=1,5),NPPS,M(L),M(L),KM(L)
      DO 370 IP=2,10
      IF(M(IP).EQ.0)GO TO 380
      NZT=NZT+1
      M(IP)=M(IP)*8.0
      KM(IP)=KM(IP)*8.0
      WRITE(6,6005) M(IP),M(IP),KM(IP)
370  CONTINUE
380  CONTINUE
      NZT=NZT+1
      WRITE(6,6006)
      IF(NZT.GE.NLT)GO TO 355
360  CONTINUE
390  REMIND 31
400  CONTINUE
6001  FORMAT(/30X,34HPERSONNEL WORK ASSIGNMENT AVERAGES/)
6004  FORMAT(12X,15,3X,5A4,3X,15,5X,14,7X,F3.1,9X,F4.2)
6002  FORMAT(1H1 //12X,9A4,15X,12H60N JUB NU. ,16/)
6003  FORMAT(/13X,3HJUB,6X,15HJOB DESCRIPTION,6X,6HN0. UF,3X,6HEQUIP.,
      13X,9HNOR. MEAN,3X,9HNOR. STD./12X,4HCODE,27X,5HPERS.,5X,4HCODE,
      24X,9HTIME-8HRS,3X,9HDEVIATION/)
6005  FORMAT(53X,14,7X,F3.1,9X,F4.2)
6006  FORMAT(12X)
      RETURN
      END

```

```

SUBROUTINE MCDT(NTP,KMC,JBL,NPLT,I,NPLTI,MKSIC,LADU)
IMPLICIT INTEGER (U)
REAL*8 MC
COMMON/IDX2/DCU1(150,20),LDD1(150,20),LCODE(3),DEC(3),JCHK(500),
JTC(150),JTC2(150),AINC,UY,ANTH,EQ,V,NEN,NACC
COMMON/ITSUE/ITST(50),UPT(30),NTST(50)
COMMON/EMC/MCODE(5),MNAME(5),IDATE
COMMON/EQ1/ALEQ2(500),STDAN(500),KYAM1(500,5),JARR(500),JSEQ(500)
COMMON/MCDM/NON(10000)

```

```

C
C THIS SUBROUTINE SEARCHES FOR SOME MACHINE DATA OUTSIDE THE GIVEN
C DATES IF NONE EXISTS BETWEEN THEM
C

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```

WRITE(6,6001) KMC
NDT1=0
KBT=1
MSUP=0
NTST1=0
NTST2=0
NTST3=0
LF=1
JADD=JBL+1
NDT2=0
DO 30 IS=1,NPLTI
KTST2=ITST(IS)
KTST1=NTST(IS)
10 READ(NTP,END=25) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),J=1,3),
IDATE
1,MLT1
MCODED=IDINT(MC/10000000.0)*100
MCODE(1)=IDINT(MC/10000000.0)*MLT1
MCODE(2)=IDINT(MC/1000000.0)*MLT1
MCODE(3)=IDINT(MC/100000.0)
MCODE(4)=IDINT(MC/10000.0)-MCODE(3)*100
MCODE(5)=IDINT(MC-10000.0*DFLOAT(IDINT(MC/10000.0)))+0.1)
MCODE(3)=IDINT(MC/1000000.0)*MLT1
IF(KMC.EQ.MCODE(5).AND.UPT(7).EQ.1)GO TO 20
IF(KMC.EQ.MCODE(5).AND.NTST(IS).EQ.MCODE(ITST(IS)))GO TO 20
IF(KMC.EQ.MCODE(5).AND.MCODE(4).EQ.0.AND.MCODED .EQ.MKSIC)GO TU24
GO TO 10
24 CONTINUE
MSUP=1
20 LF=0
KCDD=LCODE(1)
KADD=0
IF(UPT(27).EQ.0)KCDD=0
IF(KCDD.EQ.0)GO TO 1335
DU 1332 J=1,3

```



```

DCD1(LADD,J)=DEC(J)
LCD1(LADD,J)=LCODE(J)
IF(LCOJE(J).NE.0)KAUD=KAUD+1
1332 CONTINUE
1335 CONTINUE
CALL ZC(JADD,LKTST,NDT1,KBT,NTST1,NTST2,ALEQ,NTP,NDT2,KTST1,KTST2,
LLADD,KCOD,MKSIC,MSUP,NTST3,KAUD,NP,T)
25 RETURN NTP
30 CONTINUE
IF(LF.EQ.0)GO TO 40
WRITE(6,6002) KMC
GO TO 200
40 CONTINUE
JTT= JBL+1
SUM=0.0
SUM2=0.0
ISUM=0
J2=0
DO 100 IB=JTT,JADD
SUM=SUM+ALEQ2(IB)
SUM2=SUM2+STDAM(IB)**2+(JSEQ(IB)-1)
ISUM=ISUM+JSEQ(IB)
J2=J2+1
100 CONTINUE
ALEQ2(JTT)=SUM/ISUM
IF(J2.EQ.ISUM.OR.SUM2.EQ.0)GO TO 110
STDAM(JTT)=SQRT(SUM2/(ISUM-J2))
110 JSEQ(JTT)=ISUM
JARR(JTT)=KMC
JBL=JBL+1
NOM(KMC)=JTT
6001 FORMAT(/12X,29HTHERE IS NO DATA FOR MACHINE ,I4,27HBETWEEN THE DA
ATES SPECIFIED/12X,30HNON LOOK OUTSIDE THE DATES SPECIFIED/)
6002 FORMAT(/12X,41HNO DATA AT ALL EXISTS FOR MACHINE NUMBER ,I4/)
200 RETURN
END

```

```

SUBROUTINE WRITE1(I,KI, IDATE3, IDATE4, NTOT, NPLT, NLN)
  IMPLICIT INTEGER (0)
  COMMON/NM/NAME(4), JDNJNU, SNAME(50,7), NPL(50), NSIC(50)
  COMMON/ISICP/ICS(20), IPS(20,50), INU(20)
  COMMON/NCOM/NOM(10000)
  COMMON/ITSUE/ITST(50), OPT(10), NTST(50)
  DIMENSION IDATE3(50), IDATE4(50)
  NP1=1900+IDATE3(KI)
  NP2=1900+IDATE4(KI)
  JTST=ITST(KI)
  IF(OPT(23).EQ.0)GO TO 5
  NP1=100
  NP2=0
  JTST=10
  DO 2 IP=1,NPLT
  JTST=MINO(JTST,ITST(IP))
  IF(NPL(IP).LT.0)JTST=5
  NP1=MINO(NP1, IDATE3(IP))
  NP2=MAXO(NP2, IDATE4(IP))
2 CONTINUE
  NP1=NP1+1900
  NP2=NP2+1900
  GO TO 5
5 CONTINUE
  IF(NPL(KI).LT.0)JTST=5
6 CONTINUE
  IF(NP1.EQ.1900.AND.NP2.EQ.1900)GO TO 100
  IF(OPT(7).EQ.0)GO TO 10
  WRITE(6,6001) NTOT, NP1, NP2
  GO TO 200
10 CONTINUE
  IF(OPT(23).EQ.0)GO TO 40
  IF(JTST.EQ.1.OR.JTST.EQ.2.OR.JTST.EQ.3)GO TO 20
  IF(JTST.EQ.5)GO TO 25
  DO 15 IJ=1,1
  WRITE(6,6002) ICS(IJ), NP1, NP2
  ID=1
  IB=ID+11
11 CONTINUE
  IF(IB.GT.INO(IJ))IB=INU(IJ)
  WRITE(6,6003) (IPS(IJ,IL), IL=ID, IB)
  IF(IB.GE.INO(IJ))GO TO 15
  ID=ID+12
  IB=ID+11
  NLN=NLN-1
  GO TO 11
15 CONTINUE
  GO TO 200

```

```
20 WRITE(6,6006)
   DU 30 IJ=1,I
   WRITE(6,6007) ICS(IJ),INU(IJ)
   NLN=NLN-1
30 CONTINUE
   GO TO 200
25 CONTINUE
   WRITE(6,6106) NP1,NP2
   WRITE(6,6107)(ICS(IJ),IJ=1,I)
   NLN=NLN-1
   GO TO 200
40 IF(JTST.EQ.1.OR.JTST.EQ.2.UR.JTST.EQ.3)GO TO 60
   IF(JTST.EQ.5)GO TO 70
   WRITE(6,6008) ICS(1),IPS(1,1),NP1,NP2
   GO TO 200
60 CONTINUE
   ID=1
   IB=ID+11
   WRITE(6,6002) ICS(1),NP1,NP2
61 CONTINUE
   IF(IB.GT.INO(1))IB=INO(1)
   WRITE(6,6003)(IPS(1,IL),IL=ID,IB)
   IF(IB.GE.INO(1))GO TO 200
   NLN=NLN-1
   ID=ID+12
   IB=ID+11
   GO TO 61
70 CONTINUE
   WRITE(6,6034) ICS(1),NP1,NP2
   GO TO 200
100 IF(OPT(7).EQ.0)GO TO 110
   WRITE(6,6011) NTOT
   GO TO 200
110 CONTINUE
   IF(OPT(23).EQ.0) GO TO 240
   IF(JTST.EQ.5)GO TO 125
   IF(JTST.EQ.1.OR.JTST.EQ.2.OR.JTST.EQ.3)GO TO 120
   DU 150 IJ=1,I
   ID=1
   IB=ID+11
   WRITE(6,6012) ICS(IJ)
111 CONTINUE
   IF(IB.GT.INU(IJ))IB=INU(IJ)
   WRITE(6,6013) (IPS(IJ,IL),IL=ID,IB)
   IF(IB.GE.INU(IJ))GO TO 150
   ID=ID+12
   IB=ID+11
   NLN=NLN-1
```

```

      GO TO 111
150 CONTINUE
      GO TO 200
120 WRITE(6,6016)
      DO 130 IJ=1,I
      WRITE(6,6007) ICS(IJ),INO(IJ)
      NLN=NLN-1
130 CONTINUE
      GO TO 200
125 CONTINUE
      WRITE(6,6116)
      WRITE(6,6107) (ICS(IJ),IJ=1,I)
      NLN=NLN-1
      GO TO 200
240 IF(JTST.EQ.1.OR.JTST.EQ.2.OR.JTST.EQ.3)GO TO 160
      IF(JTST.EQ.5)GO TO 170
      WRITE(6,6018) ICS(1),IP>(1,1)
      GO TO 200
160 CONTINUE
      ID=1
      IB=ID+11
      WRITE(6,6012) ICS(1)
161 CONTINUE
      IF(IB.GT.INO(1))IB=INO(1)
      WRITE(6,6013) (IPS(1,IL),IL=ID,IB)
      IF(IB.GE.INO(1))GO TO 200
      NLN=NLN-1
      ID=ID+12
      IB=ID+11
      GO TO 161
170 CONTINUE
      WRITE(6,6029) ICS(1)
200 CONTINUE
6001 FORMAT(12X,23HALL SIC CODES SPECIFIED, 3X,17H NO. OF PLANTS = ,
      1I2, 4X, 8HPERIOD: ,I4,4H TU ,I4)
6002 FORMAT(12X,11HSIC CODE = ,I4,34X,
      18HPERIOD: ,I4,4H TU ,I4)
6003 FORMAT(12X,13HPLANT NOS. = ,12(13,1H,))
6004 FORMAT(25X,16I3)
6005 FORMAT(12X,29H TOO MANY PLANTS FOR SIC CODE ,I4, /12X,55H INCREASE
      1ARRAY SIZE IN SUBROUTINE WRITEL TO AT LEAST ,I3,25H AND CHANGE
      2SOME LOGIC)
6006 FORMAT(12X, 8HSIC CODE,14X,13HNO. OF PLANTS,14X,
      18HPERIOD: ,I4,4H TU ,I4)
6007 FORMAT(14X,14,20X,I3)
6008 FORMAT(12X, 11HSIC CODE = ,I4 ,11X,12HPLANT NO. = , 12, 9X,
      18HPERIOD: ,I4,4H TU ,I4)
6009 FORMAT(12X,11HSIC CODE = ,I4, 9X,15HNO. OF PLANTS = ,I2, 7X,

```

18PERIOD: ,14,4H TO ,14)
6011 FORMAT(12X,23HALL SIC CODES SPECIFIED, 5X,17H NU. OF PLANTS = ,
112, 5X,18MNO DATES SPECIFIED)
6012 FORMAT(12X,11HSIC CODE = ,14,36X,16MNO DATES SPECIFIED)
6013 FORMAT(12X,13HPLANT NOS. = ,12(13,1H,1))
6016 FORMAT(12X,8H IC CODE,4X,13HNU. O PLANTS,14X,
118MNO DATES SPECIFIED)
6018 FORMAT(12X,11HSIC CODE = ,14,12X,12HPLANT NU. = ,12,10X,
118MNO DATES SPECIFIED)
6019 FORMAT(12X,11HSIC CODE = ,14,10X,16HNU. OF PLANTS = ,12, 8X,
118MNO DATES SPECIFIED)
6029 FORMAT(12X,11HSIC CODE = ,14, 9X,20HAVERAGE FOR INDUSTRY,7X,
118MNO DATES SPECIFIED)
6039 FORMAT(12X,11HSIC CODE = ,14, 8X,20HAVERAGE FOR INDUSTRY,6X,
18PERIOD: ,14,4H TO ,14)
6106 FORMAT(12X,41HINDUSTRY AVERAGES FOR FOLLOWING SIC CODES,10X,
18PERIOD: ,14,4H TO ,14)
6107 FORMAT(12X,16I3)
6116 FORMAT(12X,41HINDUSTRY AVERAGES FOR FOLLOWING SIC CODES,10X,
118MNO DATES SPECIFIED)
RETURN
END

```
      SUBROUTINE JUBSRT(JSTO,N)
      DIMENSION JSTO(600),KSP(500),KSSC3(500)
      COMMON/ISORT/KKP(600),KSIC3(600)
C     THIS SUBROUTINE SURTS ARRAY JNP IN DESCENDING ORDER OF MAGNITUDE
C     IF ANY TWO ELEMENTS ARE EQUAL, THE CORRESPONDING ELEMENTS IN KSIC3
C     ARE SURTED IN DESCENDING ORDER
      DO 5 I=1,N
      KSP(I)=KKP(I)
      KSSC3(I)=KSIC3(I)
5     CONTINUE
      DO 10 I=1,N
      JSTO(I)=1
      IBT=KSP(I)
      KBT=KSSC3(I)
      DO 20 K=1,N
      IF(I*BT.GT.KSP(K))GO TO 20
      IF(I*BT.NE.KSP(K))GO TO 30
      IF(K*BT.GT.KSSC3(K))GO TO 20
      JSTO(I)=K
      KBT=KSSC3(K)
      GO TO 20
30    JSTO(I)=K
      KBT=KSSC3(K)
      IBT=KSP(K)
20    CONTINUE
      KSP(JSTO(I))=0
      KSSC3(JSTO(I))=0
10    CONTINUE
      RETURN
      END
```

```
SUBROUTINE JOBST1(JSTO,N,JCODE1)
  DIMENSION JSTO(600),JBN(600),JCODE1(600)
```

```
C
C
C
```

```
THIS SUBROUTINE SORTS ARRAY JCODE1 IN DESCENDING ORDER OF MAGNITUDE
THE ORDER IS STORED IN ARRAY JSTO
```

```
  DO 5 I=1,N
    JBN(I)=JCODE1(I)
  5 CONTINUE
  DO 10 I=1,N
    JSTO(I)=1
    IBT=JBN(I)
    DO 20 K=1,N
      IF(IBT.GT.JBN(K))GO TO 20
      JSTO(I)=K
      IBT=JBN(K)
    20 CONTINUE
    JBN(JSTO(I))=0
  10 CONTINUE
  RETURN
  END
```

```
SUBROUTINE JOBST2(URD2,N,AMP)
  IMPLICIT INTEGER (U)
  DIMENSION ORD2(500),AMP(500),AN(500)
```

```
C
C THIS SUBROUTINE SORTS ARRAY AMP INTO DESCENDING ORDER AND STORES
C THIS ORDER IN URD2
C
```

```
  DO 5 I=1,N
    AN(I)=AMP(I)
  5 CONTINUE
  DO 10 I=1,N
    ORD2(I)=1
    ABT=AN(I)
    DO 20 K=1,N
      IF(ABT.GT.AN(K))GO TO 20
      ORD2(I)=K
      ABT=AN(K)
  20 CONTINUE
  AN(ORD2(I))=0.0
  10 CONTINUE
  RETURN
  END
```



```
SUBROUTINE JOBST3(JSTU,N,JCODE1)
REAL*8 JBN,JCODE1,IBT
DIMENSION JSTU(600),JBN(600),JCODE1(600)
```

```
C
C THIS SUBROUTINE SURTS ARRAY JCODE1 IN DESCENDING ORDER OF MAGNITUDE
C THE ORDER IS STORED IN ARRAY JSTU
```

```
DO 5 I=1,N
  JBN(I)=JCODE1(I)
5 CONTINUE
DO 10 I=1,N
  JSTU(I)=1
  IBT=JBN(I)
  DO 20 K=1,N
    IF(IBT.GT.JBN(K))GO TO 20
    JSTU(I)=K
  C FIRST OF ALL RANK ORDER LMP ARRAY
  IBT=JBN(K)
20 CONTINUE
  JBN(JSTU(I))=0
10 CONTINUE
  RETURN
  END
```

```

SUBROUTINE NPSC(I,NTOT,IB)
  IMPLICIT INTEGER (D)
  COMMON/ISORD/ ORD2(600),NPEOP(600),MULT1(600)
  COMMON/ISICP/ ICS(20),IPS(20,50),INU(20)
  DIMENSION JUES(5),MX(10),CN(10)

C
C THIS SUBROUTINE FINDS THE NO OF PLANTS AND THEIR CORRESPONDING
C ID NUMBERS FOR EACH SIC CODE CONSIDERED
  NTOT=0
  ICL=0
  I=0
  J=1
  DO 10 JCB=1,18
    IC2=IC1
    JCODE=NPEOP(ORD2(JCB))
C
    ICL=JCODE/100000
    IP1=JCODE/1000-IC1*100
    IF(IC1.EQ.IC2)GO TO 20
    I=I+1
    ICS(I)=IC1/MULT1(ORD2(JCB))
    IPS(I,1)=IP1
C
C I=NO OF DIFFERENT SIC CODES CONSIDERED
C J=NO OF DIFFERENT PLANTS FOR A GIVEN SIC CODE
    IF(I.EQ.1)GO TO 10
    INU(I-1)=J
    NTOT=NTOT+J
    J=1
    GO TO 10
20  DO 50 K=1,J
    IF(IP1.EQ.IPS(I,K))GO TO 10
50  CONTINUE
    J=J+1
    IPS(I,J)=IP1
10  CONTINUE
    INU(I)=J
    NTOT=NTOT+J
    RETURN
  END

```



```

C   MMH WRITE OUT LIST
    NZT=0
    DO 270 IL=1,45
    NZT=NZT+1
    NB=NB+1
    IF(NB.GT.JA)GO TO 280
    AC=   LMP(LSTU(NB))
    AH=   LMPHC(LSTO(NB))
    AL1=L81(LSTO(NB))
    AL2=L81MC(LSTO(NB))
    IF(AL1.LT.ANTH.AND.AL2.LT.ANTH)GO TO 266
    IF(AL1.LT.ANTH.AND.AL2.LT.ANTH)GO TO 266
    IF(AL1.LT.ANTH)GO TO 267
    WRITE(6,6009) JARR3(LSTU(NB)),(KNAME2(LSTO(NB),J),J=1,5),
    1JSEQ3(LSTO(NB)),AL1,AL2,AC,AH
    GO TO 269
266 WRITE(6,6011) JARR3(LSTU(NB)),(KNAME2(LSTO(NB),J),J=1,5),
    1JSEQ3(LSTO(NB)),ANTH,ANTH,AC,AH
    GO TO 269
267 WRITE(6,6010) JARR3(LSTU(NB)),(KNAME2(LSTO(NB),J),J=1,5),
    1JSEQ3(LSTO(NB)),ANTH,AL2,AC,AH
269 CONTINUE
    IF(NZT.GE.NLN)GO TO 260
270 CONTINUE
280 CONTINUE
    DO 590 JZ=1,JA
    JOBC(JZ)=JARR3(JZ)/100
    NUMP(JZ)=0
    ALB2(JZ)=0.0
    ALVP(JZ)=0.0
    ALB2HC(JZ)=0.0
    ALVPHC(JZ)=0.0
590 CONTINUE
    JB=0
    DO 595 JZ=1,JA
    IF(L81(JZ).LE.65.0)L81(JZ)=65.0
    IF(L81MC(JZ).LE.65.0)L81MC(JZ)=65.0
595 CONTINUE
    DO 600 JZ=1,JA
    IF(JOBC(JZ).EQ.0)GO TO 600
    NAV=0
    JB=JB+1
    JOBC(JB)=JOBC(JZ)
    NJ(JB)=JZ
    DO 640 IZ=JZ,JA
    IF(JOBC(IZ).NE.JOBC(JB))GO TO 640
    IF(JB.EQ.IZ)GO TO 610
    JOBC(IZ)=0

```

```

610 CONTINUE
  NUMP(JB)=NUMP(JB)+JSEQ3(IZ)
  NAV=NAV+JSEQ3(IZ)
  ALVP(JB)=ALVP(JB)+LWP(IZ)+JSEQ3(IZ)
  ALVPHC(JB)=ALVPHC(JB)+LWPHC(IZ)+JSEQ3(IZ)
640 CONTINUE
  IF(NAV.EQ.0)GO TO 615
  ALVP(JB)=ALVP(JB)/NAV
  ALVPHC(JB)=ALVPHC(JB)/NAV
  IF(ALVPHC(JB).LE.1.E-5)GO TO 615
  ALB2HC(JB)=3.322*ALOG10(ALVPHC(JB))*NEN+EQLV
  IF(ALVP(JB).LE.1.E-5)GO TO 601
  ALB2(JB)=3.322*ALOG10(ALVP(JB))*NEN+EQLV
  GO TO 600
615 CONTINUE
  ALB2HC(JB)=0.0
601 CONTINUE
  ALB2(JB)=ALVP(JB)*1.E-8+JB*1.E-12
600 CONTINUE
  DO 605 NI=1,JB
  IF(ALVP(NI).LE.1.E-20)ALVP(NI)=ALB2(NI)*1.E-12
605 CONTINUE
  CALL JOBST2(MST0,JB,ALVP)
  CALL JOBST2(MST0,JB,ALB2)
  NB=0
660 CONTINUE
  NLN=36
  WRITE(6,6103)(NAME(I),J=1,7),JBNJNJ
  WRITE(6,6003)
  IF(OPTST.EQ.0)GO TO 665
  NLN=NLN-2
  WRITE(6,6006)
665 CONTINUE
  IF(NTIS.EQ.1)WRITE(6,6021)
  WRITE(6,6007) ANTH,EQLV,NEN
  CALL WRITE1(IR,I,ND3,ND4,NTUT,NPLT,NLNI)
  WRITE(6,6008)
C  NUM WRITE OUT LIST
  NZT=0
  DO 670 IL=1,45
  NZT=NZT+1
  NB=NB+1
  IF(NB.GT.JB)GO TO 680
  AC= ALVP(MST0(NB))
  AH= ALVPHC(MST0(NB))
  AL1=ALB2(MST0(NB))
  AL2=ALB2HC(MST0(NB))
  IF(AL1.LT.ANTH.AND.AL2.LT.ANTH)GO TO 666

```

```

      IF(AL1.LT.ANTH)GO TO 667
      WRITE(6,6009) JOBC(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
      INUMP(MSTU(NB)),AL1,AL2,AC,AM
      GO TO 669
666 WRITE(6,6011) JUBC(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
      1 NUMP(MSTU(NB)),ANTH,ANTH,AC,AM
      GO TO 669
667 WRITE(6,6010) JOBC(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
      1 NUMP(MSTU(NB)),ANTH,AL2,AC,AM
669 CONTINUE
      IF(MZT.GE.NLN)GO TO 660
670 CONTINUE
680 CONTINUE
300 CONTINUE
      JE=JB
C   WRITE OUT TOTAL EXPOSURE
      IF(OPT(19).EQ.1)GO TO 670
      IF(NZT.LE.23)GO TO 679
678 CONTINUE
      WRITE(6,6103)(NAME(J),J=1,9),JBNJNU
      WRITE(6,6003)
      IF(UTST.EQ.1)WRITE(6,6006)
      WRITE(6,6007) ANTH,EQLV,NEN
      CALL WRITE1(IR,1,ND3,ND4,NTUT,NPLT,MLN)
679 CONTINUE
      WRITE(6,6012)
      WRITE(6,6013) NTU,NEXP,NEXPHC
      IF(NRUN.GT.1.AND.NTIS.EQ.0)GO TO 400
C
C   WRITE OUT EQUIPMENT IMPACT DATA
C
C   PUT ARRAY LMPN IN DESCENDING ORDER
C
998 CONTINUE
      LX=0
      DTST=0
      JNZ=JMAX-LCA
      CALL JOBST2(DRO2,JNZ,LMPJ)
380 CONTINUE
      IF(OPT(16).NE.0)GO TO 400
      NB=0
382 CONTINUE
      NLN= 26
      WRITE(6,6001)(NAME(J),J=1,9),JBNJND,KKK
      IF(UTST.EQ.1)GO TO 383
      WRITE(6,6004)
      GO TO 384
383 CONTINUE

```

```

WRITE(6,6005)
384 CONTINUE
  IF(IPTST.EQ.0)GO TO 385
  NLN=NLN-2
  WRITE(6,6006)
385 CONTINUE
  IF(NTIS.EQ.1)WRITE(6,6021)
  WRITE(6,6007) ANTH,EQLV,NEN
  CALL WRITE1(IR,I,ND3,ND4,NTDT,NPLT,NLN)
  WRITE(6,6014)
C NOW WRITE OUT LIST
  NZT=0
  DO 390 IL=1,45
  NB=NB+1
  NZT=NZT+1
  ORD2(NB)=ORD2(NB)+LX
  IF(NB.GT.JMDZ)GO TO 395
  IF(NPEUP(ORD2(NB)).EQ.0)GO TO 395
  CHLJ=ALEQ2(ORD2(NB))+STVAM(ORD2(NB))
  AC=LHPJ(ORD2(NB))
  WRITE(6,6015) JARR(ORD2(NB)),(KNAM1(ORD2(NB),J),J=1,5),
  LJSEQ(ORD2(NB)),ALEQ2(ORD2(NB)),CHLJ,NPEOP(ORD2(NB)),AC, LWPNI(ORD
  22(NB))
  IF(NZT.GE.NLN)GO TO 384
390 CONTINUE
395 CONTINUE
  IF(OPT(24).EQ.0)GO TO 400
  IF(IUTST.EQ.1)GO TO 400
  OTST=1
C CALCULATE NUMBER OF PEOPLE ETC. TO WRITE IN JATA AVERAGES
  LU=JMAX-LCA+1
  DO 510 IZ=1,LCA
  DO 505 LZ=1,JMZ
  IF(JCHK(LZ).NE.0)GO TO 505
  IF(JARR(LZ).LE.MAC3(IZ).AND.JARR(LZ).GE.MAC2(IZ))GO TO 500
  IF(JARR(LZ).EQ.MAC1(IZ))GO TO 500
  GO TO 505
500 CONTINUE
  LHPJ(IZ+JMZ)=LHPJ(IZ+JMZ)+LHPJ(LZ)
  LWPNI(IZ+JMZ)=LWPNI(IZ+JMZ)+LWPNI(LZ)
  NPEUP(IZ+JMZ)=NPEOP(IZ+JMZ)+NPEUP(LZ)
505 CONTINUE
510 CONTINUE
  DO 410 IH=1,LCA
  IF(LHPJ(IH+JMZ).LT.1.E-3)LHPJ(IH+JMZ)=ALEQ2(IH+JMZ)+1.E-12
  1+FLUAT(IH)+1.E-15
  STDM3(IH)=LHPJ(IH+JMZ)
410 CONTINUE

```

```

LX=JMZ
JMDZ=LCA
JMZ=LCA
CALL JOBST2(OKD2,LCA,STUM3)
GU TO 380
6001 FORMAT(1H1////////12X,9A4,15X,12HBDN JOB NO. ,16,
120X,14HALTERNATIVE = ,12)
6021 FORMAT(31X,31HAFTER NOISE REDUCTION ITERATION/)
6002 FORMAT(29X,35HPERSONNEL NOISE EXPOSURE AND IMPACT/)
6003 FORMAT(25X,44HPERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES/)
6004 FORMAT(/30X,32HEQUIPMENT NOISE CONTROL PRIORITY/)
6005 FORMAT(/26X,41HEQUIPMENT NOISE CONTROL PRIORITY AVERAGES/)
6006 FORMAT(26X,41HAFTER NOISE CONTROL ON SELECTED EQUIPMENT/)
6007 FORMAT(30X,25HTHRESHOLD LEVEL = ,F4.1,4H DBA/
1 30X,25H8-HR PERMISSIBLE LEVEL = ,F4.1,4H DBA/
2 30X,25HEXCHANGE RATE = ,11,4H DBA/)
6008 FORMAT(/13X,3HJOB,3X,20H JOB DESCRIPTION ,3X,6HNO. OF,3X,
112H SOUND LEVEL,3X,16HDAILY NOISE DOSE,/12X,4HCODE,26X,6HPERS. ,
24X,5HMEAN ,2X,5HH.C. ,3X,5HMEAN ,2X,6H H.C. ,/)
6009 FORMAT(11X,15,5X,5A4,16, 4X,F5.1,2X,F5.1,3X,F5.2,3X,F6.2)
6010 FORMAT(11X,15,5X,5A4,16, 4X,1H<,F4.1,2X,F5.1,3X,F5.2,3X,F6.2)
6011 FORMAT(11X,15,5X,5A4,16, 4X,1H<,F4.1,2X,1H<,F4.1,3X,F5.2,3X,F6.2
1)
6012 FORMAT(////)
6013 FORMAT(//12X,70H*****
1*****//27X,33HTOTAL NUMBER OF PERSONNEL =,17/
227X,34HTOTAL NUMBER OVEREXPOSED (MEAN) = ,16/
327X,34HTOTAL NUMBER OVEREXPOSED (H.C.) = ,16//12X,70H*****
4*****)
6014 FORMAT(/12X,6HEQUIP.,3X,17H EQUIPMENT ,3X,5HNO.OF,3X,
14HMEAN,3X,4HH.C.,2X,5HNO.OF,2X, 8HPRIORITY,2X,5HNO.OF./
2 12X,6H CODE ,3X,17H DESCRIPTION ,3X,5HUNITS,
33X,4H LJ ,3X,4H LJ ,2X,5HPERS.,3X,5HINDEX,4X,4HP.1./)
6015 FORMAT(13X,14,4X,5A4,14,3X,F5.1,2X,F5.1,1X,16,1X,F8.1,1X,F6.3)
6103 FORMAT(1H1////////12X,9A4,15X,12HBDN JOB NO. ,16/)
400 RETURN
END

```



```

SUBROUTINE OSHA(LCA,NTP,JBL,NPLT,I,NPLTI,MKSIC,JMAX,JA,OPTST,IX,
INTUT)
  IMPLICIT INTEGER (I)
  REAL LBI,LBINC,LWP,LWPHC,LWPJ,LWPHCJ,LWPN,LWPHCN,LIJ,LIJWC,KCC*8
  I,JCODEZ*8
  COMMON/ISOXU/ ORD2(600),NPEUP(600),MULTI(600)
  COMMON/COSHA/ SWH(10),SLEVWC(10), JDES(5),M(10),M(10),
  LMS(10),NEXPWC, JCODE(5),LWPJ(500),LWPN(500),NEXP,LADD
  7,KJATA(5)
  COMMON/EQ1/ALEQ2(500),STDM(500),KNAME1(500,5),JARR(500),JSEQ(500)
  COMMON/EQ2/ALEQ3(500),STDM3(500),KNAME2(500,5),JARR3(500),JSEQ3(50
  10)
  COMMON/ITSJE/ITST(50),OPT(30),NTST(50)
  COMMON/NM/NAME(9),JBNJNJ,SNAM(50,7),NPL(50),NSIC(50)
  COMMON/OD/MAC1(500),MAC2(50),MAC3(50),JCODE2(50),NSC(50)
  COMMON/NCOM/NDM(10000)
  COMMON/NHC/LWP(500),LWPHC(500),NT90,NH90,NT75,NH75,NTTU,LSTU(500),
  LKSTU(500),LBI(500),LBINC(500),SUM,SUMHC,LNT90,LNT75,LNH90,LNH75,
  ZALB2(500),ALB2HC(500),ALVP(500),ALVPHC(500),NUMP(500),JUBC(500),
  JNSTU(500),MSTU(500),NJ(500),JE,URU(500),JBDES2(50,5),RSUM,RSUMHL
  COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
  COMMON/SICP/ICS(20),IPS(20,50),IND(20)
  COMMON/LMIX/LMAX(150),LCOD1(150,10)
  COMMON/EMC/MCODE(5),MNAME(5),IDATE
  COMMON/IDX2/DCU1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
  JTC(150),JTC2(150),AING,BY,ANTH,EOLV,NEN,MACC
  DIMENSION AREQ(500),JTEST(200),JARR4(500),JRN(500),FMX(10)

```

```

C
C THIS SUBROUTINE CALCULATES PERSONNEL EXPOSURES AND EQUIPMENT IMPACTS
C USING OSHA CRITERIA
C

```

```

  FACN=1.0/2.0**((EOLV-ANTH)/NEN)
  NPUP=NPPP(I)
  PSUM=0.0
  JP=0
  NTIS=0
  JRUN=0
  JMZ=JMAX-LCA
  DO 60 IJ=1,500
  JRN(IJ)=0
  AREQ(IJ)=0.0
60 CONTINUE
  DO 65 IJ=1,200
  JTEST(IJ)=0
65 CONTINUE
  JMZ=0
  DO 50 IJ=1,JMZ
  IF(JCHK(IJ).NE.0)GO TO 50

```

```
      IMZ=IMZ+1
      JARR4(IMZ)=JARR(IJ)
      JRN(IJ)=IMZ
50  CONTINUE
      NKUN=0
80  JA=U
      NTTU=0
      NEXP=0
      NEXPWC=0
C   CALCULATE AND WRITE OUT PERSONNEL EXPOSURE
100 READ(31,END=240) KCC,(JDES(I),I=1,5),(M(IJ),H(IJ),HS(IJ),JJ=1,10),
      INPKS
      IF(INPKS.EQ.0)GO TO 100
      IF(M(I).EQ.0)GO TO 100
      CTOT=0.0
      SLEV=0.0
      DO 130 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 130
      SMH(IJ)=M(IJ)
      KJ=NOM(M(IJ))
      IF(KJ.NE.0)GO TO 110
      SLEVHC(IJ)=0.0
      GO TO 130
110  CONTINUE
      SLEVHC(IJ)=ALEQ2(KJ)
      IF(ALEQ2(KJ).LE.SLEV)GO TO 130
      IK=IJ
      SLEV=ALEQ2(KJ)
130  CONTINUE
C   NUM RENORMALIZE HOURS
135  CONTINUE
      DO 160 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 165
      KJ=NOM(M(IJ))
      IF(IJ.EQ.IK)GO TO 140
      GO TO 150
140  CONTINUE
      SLEVHC(IJ)=ALEQ2(KJ)+STOAM(KJ)
      SMH(IJ)=M(IJ)+HS(IJ)
150  CTOT=CTOT+SMH(IJ)
160  CONTINUE
165  CONTINUE
      DO 170 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 175
      SMH(IJ)=SMH(IJ)/CTOT
170  CONTINUE
175  CONTINUE
      JA=JA+1
```

```

L81(JA)=1.E-15
L8INC(JA)=0.0
LWPHC(JA)=0.
LWP(JA)=0.
DO 230 IJ=1,10
IF(M(IJ).EQ.0)GO TO 231
KJ=NOM(M(IJ))
IF(KJ.EQ.0)GO TO 230
IF(KNAME1(KJ,3).EQ.KDATA(3))GO TO 230
IF(M(IJ).EQ.1000)GO TO 230
216 CONTINUE
IF(ALEQ2(KJ).LE.ANTH)GO TO 215
FIJ=FACN*H(IJ)*2.0*((ALEQ2(KJ)-ANTH)/NEN)*OPT(8)/4.0
GO TO 218
215 FIJ=ALEQ2(KJ)*1.E-30
IF(SLEVHC(IJ).LE.ANTH)GO TO 220
218 CONTINUE
FIJHC=FACN*SMH(IJ)*2.0*((SLEVHC(IJ)-ANTH)/NEN)*OPT(8)/4.0
GO TO 221
220 FIJHC=0.0
221 LWP(JA)=LWP(JA)+FIJ
LWPHC(JA)=LWPHC(JA)+FIJHC
230 CONTINUE
231 CONTINUE
IF(LWP(JA).GT.1.0)NEXP=NEXP+NPRS
IF(LWPHC(JA).GT.1.0)NEXPHC=NEXPHC+NPRS
IF(LWP(JA).LT.0.0001)GO TO 233
L81(JA)=3.322*ALOG10(LWP(JA))*NEN+EQLV
GO TO 235
233 L81(JA)=FLUAT(JA)/1.E+4
235 IF(LWPHC(JA).LT.0.00001)GO TO 232
L8INC(JA)=3.322*ALOG10(LWPHC(JA))*NEN+EQLV
232 CONTINUE
IF(LWP(JA).LT.0.000001)LWP(JA)=FLUAT(JA)/1.E+10
DO 238 J=1,5
KNAME2(JA,J)=JDES(J)
238 CONTINUE
JSEQ3(JA)=NPRS
NTTO=NTTO+NPRS
JAKR3(JA)=IDINT(KCC-100000.0*DFLOAT(IDINT(KCC/100000.0))+0.1)
GO TO 100
240 CONTINUE
NTTT=NTTO
IF(UPT(29).NE.1)GO TO 250
DO 245 IJ=1,JA
JSEQ3(IJ)=JSEQ3(IJ)*(FLUAT(NPOP)/FLUAT(NTTU)+1.E-8)
245 CONTINUE
NEXP=NEXP+NPOP/NTTU

```

```

      NEXPWC=NEXPWC*NPOP/NTTU
      NTTU=NPUP
250  CONTINUE
      NRUN=NRUN+1
      REMIND 31
C    IF FIRST TIME THROUGH ITERATION SORT IN URDER OF DAILY NUISE DOSE
C
      IF(NRUN.EQ.1)CALL JOBST1(LSTO,JA,LS1)
C
C    NOW CALCULATE EQUIPMENT IMPACT
C    FIRST WE INITIALIZE ARRAYS
C
      DO 997 KKK=1,2
      DO 305 KJ=1,JMAX
      LWPJ(KJ)=0.0
      LMPN(KJ)=0.0
      NPEUP(KJ)=0.0
305  CONTINUE
      IF(OPT(16).NE.0.AND.OPT(17).NE.0)GO TO 380
      BUM=0.0
      JB=0
      LKDT=0
310  READ(31,END=360) KCC,(JUES(J),J=1,5),(MAJJ,M(JJ),MS(JJ),JJ=1,10),
      LNPRS
      IF(LNPRS.EQ.0)GO TO 310
      IF(M(1).EQ.0)GO TO 310
      IF(OPT(25).EQ.1)NPRS=NPKS*MPOP/NTTU
      JB=JB+1
      IF(LWP(JB).LE.1.00001)GO TO 311
      DO 350 IJ=1,10
      IF(M(IJ).EQ.0)GO TO 310
      IF(M(IJ).EQ.1000)GO TO 350
      KJ=NOH(M(IJ))
      IF(KNAM1(KJ,3).NE.KDATA(3).AND.KJ.NE.0)GO TO 320
      WRITE(6,6002) M(IJ)
      GO TO 350
320  CONTINUE
      NPEUP(KJ)=NPEUP(KJ)+NPKS
      IF(ALEQ2(KJ).LE.ANTH)GO TO 350
      FIJ=FACN*M(IJ)+2.0**((ALEQ2(KJ)-ANTH)/NEN)*OPT(8)/4.0
      ALP=FIJ*NPRS/LWP(JB)
      IF(KKK.EQ.2)ALP=FIJ*NPRS
      IF(JCHK(KJ).EQ.0)GO TO 325
      KADU=JTC(JCHK(KJ))
      DO 326 J=1,KADU
      IF(LCD1(JCHK(KJ),J).EQ.1000)GO TO 326
      ALX=ALP*DCD1(JCHK(KJ),J)
      BUM=BUM+ALX

```

```
      KF=NOM(LCD1(JCHK(KJ),J))
      NPEUP(KF)=NPEOP(KF)+NPKS
      LWPJ(KF)=LWPJ(KF)+ALX
326 CONTINUE
      GO TO 350
325 CONTINUE
      LWPJ(KJ)=LWPJ(KJ)+ALP
327 CONTINUE
      BUM=BUM+ALP
350 CONTINUE
      GO TO 310
360 CONTINUE
C   NORMALIZE PIJ
      DO 370 IJ=1,JMAX
      IF(LWPJ(IJ).GT.0.001)GO TO 365
      LWPJ(IJ)=ALEQ2(IJ)/10000000.0
365 CONTINUE
      IF(JCHK(IJ).EQ.0)GO TO 366
      LWPJ(IJ)=0.0
      LKDT=LKDT+1
366 CONTINUE
      IF(BUM.LE.0.0)GO TO 370
      LWPJ(IJ)=LWPJ(IJ)/BUM
370 CONTINUE
      REWIND 31
      IF(NRUN.GT.1)GO TO 380
      KKK=KKK
      JMUZ=JMZ-LKDT
      CALL WRITE2(OPTST,JA,NRUN,_CA,JMAX,IK,1,NPLT,NTOT,JBL,NTIS
      L,KKK,JMUZ)
380 CONTINUE
997 CONTINUE
6002 FORMAT(/12X,27HNO DATA FOR EQUIPMENT CODE ,14)
      RETURN
      END
```

```

SUBROUTINE WRITE3(IZ,KKI,NTOT,NPLT,JA,JMAX,LCA,NTKIC)
IMPLICIT INTEGER (U)
REAL LBI,LBINC,LWP,LWPHL,LWPJ,LWPHCJ,LHPN,LHPHCN,LIJ,LIJWC,KCC*4
L,JCODEZ*8
COMMON/CDSHA/ SWH(10),SLEVHC(10), JDES(5),M110,M110,
LMS(10),NEXPHC, JCODE(5),LWPJ(500),LHPN(500),NEXP,LADD
7,KDATA(5)
COMMON/EQ1/ALEQ2(500),STOAM(500),KNAM1(500,5),JARR(500),JSEQ(500)
COMMON/EQ2/ALEQ3(500),STOM3(500),KNAME2(500,5),JARR3(500),JSEQ3(50
10)
COMMON/ITSD/ITST(50),OPT(30),NTST(50)
COMMON/NM/NAME(4),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
COMMON/NCOM/NOM(10000)
COMMON/NMC/LWP(500),LWPHC(500),NT90,NM90,NT75,NM75,NTTQ,LSTD(500),
LKSTU(500),LBI(500),LBINC(500),SUM,SUMHC,LNT90,LNT75,LNM90,LNM75,
2ALB2(500),ALB2HC(500),ALYP(500),ALYPHC(500),NUMP(500),JOB(500),
3NSTU(500),MSTO(500),NJ(500),JE,URD(500),JBUES2(50,5),RSUM,RSUMHC
COMMON/OTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/ISICP/ICS(20),IPS(20,50),INU(20)
COMMON/IDX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
1JTC(150),JTC2(150),AINC,DY,ANTH,EQLV,NEN,NACC
IF(ANTH.LE.10.0)ANTH=75.0

```

C
C
C
C
C

THIS SUBROUTINE WRITES OUT NOISE REDUCTION IMPACT DATA

FIRSTLY WRITE EQUIPMENT LEQ DATA

```

JMZ=JMAX-LCA
NOB=0
IF(OPT(15).EQ.1)GO TO 1700
IF(OPT(17).NE.0)GO TO 1700
1600 WRITE(6,6035) (NAME(J),J=1,9),JBNJNU
NLN=38
WRITE(6,6051)
CALL WRITE1(IZ,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6036)
C NOW WRITE LIST OF DATA
NNT=0
DO 1620 IL=1,45
NNT=NNT+1
NOB=NOB+1
IF(NOB.GT.JMZ)GO TO 1625
READ(50) ALQ,STQ,NBT
IF(ALQ.EQ.0.0.OR.JARR(NBT).EQ.1000)GO TO 1619
REU=ALQ-ALEQ2(NBT)
WRITE(6,6037) JARR(NBT),(KNAM1(NBT,J),J=1,5),JSEQ(NBT),ALQ,ALEQ2(N
1BT),REU
GO TO 1618

```

```

1619 CONTINUE
      NZT=NZT-1
1618 CONTINUE
      IF(NZT.GE.NLN)GO TO 1600
1620 CONTINUE
1625 CONTINUE
      NOB=NOB-1
      IF(OPT(24).EQ.0)GO TO 1700
1630 WRITE(6,6035) (NAME(J),J=1,9),JBNJND
      NLN=38
      WRITE(6,6052)
      CALL WRITE1(IZ,KKI,ND1,ND2,NTOT,NPLT,NLN)
      WRITE(6,6036)
      NZT=0
1635 NZT=NZT+1
      NOB=NOB+1
      IF(NOB.GT.JMAX)GO TO 1700
      READ(5U) ALQ,STQ,NBT
      IF(ALQ.EQ.0.0.OR.JARR(NBT).EQ.1000)GO TO 1636
      RED=ALQ-ALEQ2(NBT)
      WRITE(6,6037) JARR(NBT),(KNAM1(NBT,J),J=1,5),JSEQ(NBT),ALQ,ALEQ2(N
1BT),RED
      GO TO 1637
1636 CONTINUE
      NZT=NZT-1
1637 CONTINUE
      IF(NZT.GE.NLN)GO TO 1630
      GO TO 1635
1700 CONTINUE
C   NUM WRITE OUT TOTAL IMPACT DATA
      WRITE(6,6135) (NAME(J),J=1,9),JBNJND
      WRITE(6,6043)
      WRITE(6,6038)
      IF(OPT(28).EQ.0)GO TO 1715
      IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1715
      WRITE(6,6137) ANTH,EQLV,NEN
      CALL WRITE1(IZ,KKI,ND1,ND2,NTOT,NPLT,NLN)
      WRITE(6,6134)NTTO,NTTO,LNT90,NEXP,_,NH90,NEXPNC
      GO TO 1718
1715 CONTINUE
      WRITE(6,6210)
      CALL WRITE1(IZ,KKI,ND1,ND2,NTOT,NPLT,NLN)
      WRITE(6,6034) MTTU,NTTU,LNT75,NT75,LNH75,NH75,LNT90,NT90,LNH90,
1NH90,RSUM,SUM,RSUMNC,SUMNC
1718 CONTINUE
C
C   NUM WRITE OUT PERSONNEL IMPACT NOISE REDUCTION DATA
C

```

```

IF(OPT(19).EQ.1)GO TO 1800
IF(OPT(20).NE.0)GO TO 1800
NBT=0
IF(OPT(21).EQ.2)GO TO 1750
1720 NBT=0
NLN=38
WRITE(6,6135) (NAME1(J),J=1,9),JANJNO
WRITE(6,6038)
IF(OPT(28).EQ.0)GO TO 1725
IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1725
WRITE(6,6137) ANTH,EQLY,NEM
NLN=34
GO TO 1724
1725 CONTINUE
WRITE(6,6210)
1724 CONTINUE
CALL WRIT1(IZ,KK1,ND1,ND2,NTOT,NPLT,NLN)
IF(OPT(28).EQ.0)GO TO 1726
IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1726
WRITE(6,6140)
WRITE(6,6141)
GO TO 1727
1726 CONTINUE
WRITE(6,6040)
WRITE(6,6041)
1727 CONTINUE
IF(OPT(28).EQ.1)GO TO 1755
IF(OPT(28).GE.2.AND.NTRIC.NE.0)GO TO 1755
DO 1730 IL=1,45
NBT=NBT+1
NBT=NBT+1
IF(NBT.GT.JA)GO TO 1750
READ(50) ALB,ALBH,ANP,ANC,NOB
LH=INT(LHP(NUE))
LC=INT(LHPHC(NUB))
LAP=INT(ANP)
LAC=INT(ANC)
KM=LAP-LH
KNC=LAC-LC
WRITE(6,6042) JARR3(NOB), (KNAME2(NOB),J=1,5),
1JSEQ3(NOB),LAP,LAL,LH,LC,KM,KNC
IF(NBT.GE.NLN)GO TO 1720
1730 CONTINUE
1755 CONTINUE
DO 1735 IL=1,45
NBT=NBT+1
NBT=NBT+1
IF(NBT.GT.JA)GO TO 1750

```



```

READ(50)ALB,ALDH,AMP,AWC,NUB
AW=LWP(NUB)
AC=LWPHC(NUB)
RW=AWP-AW
RC=AWC-AC
WRITE(6,6142) JARR3(NUB), (KNAME2(NUB),J),J=1,5),
1JSEQ3(NUB),AMP,AWL,AW,AC,KH,<C
IF(NZT.GE.NLN)GO TO 1720
1735 CONTINUE
1750 CONTINUE
IF(OPT(21).EQ.1)GO TO 1790
NBT=0
1760 NLN=38
NLT=0
WRITE(6,6135) (NAME1(J),J=1,9),JBNJNU
WRITE(6,6038)
IF(OPT(28).EQ.0)GO TO 1758
IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1758
NLN=34
WRITE(6,6137) ANTH,EQLV,NE4
GO TO 1759
1758 CONTINUE
WRITE(6,6210)
1759 CONTINUE
CALL WRITE1(I2,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6039)
WRITE(6,6141)
1765 CONTINUE
NLT=NLT+1
NBT=NBT+1
IF(NBT.GT.JA)GO TO 1790
READ(50) ALB,ALDH,AMP,AWPC,NUB
AKP=ALB-LBI(NUB)
AKC=ALDH-LBIHC(NUB)
IF(LBI(NUB).LT.ANTH)AKP=ALB-ANTH
IF(LBIHC(NUB).LT.ANTH)AKC=ALDH-ANTH
IF(AKP.LT.0.0)AKP=0.0
IF(AKC.LT.0.0)AKC=0.0
IF(ALB.LT.ANTH.AND.ALDH.LT.ANTH)GO TO 1770
IF(ALB.LT.ANTH)GO TO 1775
IF(LBI(NUB).LT.ANTH.AND.LBIHC(NUB).LT.ANTH)GO TO 1780
IF(LBI(NUB).LT.ANTH)GO TO 1785
WRITE(6,6044) JARR3(NUB), (KNAME2(NUB),J),J=1,5),
1JSEQ3(NUB),ALB,ALDH,LBI(NUB),LBIHC(NUB),AKP,AKC
GO TO 1795
1770 WRITE(6,6101) JARR3(NUB), (KNAME2(NUB),J),J=1,5),
1JSEQ3(NUB),ANTH,ANTH,ANTH,ANTH,AKP,AKC
GO TO 1795

```

G1 RELEASE 2.0

WRITE3

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1775 WRITE(6,6102) JARR3(NOBB      ),(KNAME2(NOBB      ),J),J=1,5),
      LJSEQ3(NOBB      ),ALB,ALBH,ANTH,LBIWC(NOBB      ),AKP,AKC
      GO TO 1795
1780 WRITE(6,6103) JARR3(NOBB      ),(KNAME2(NOBB      ),J),J=1,5),
      LJSEQ3(NOBB      ),ALB,ALBH,ANTH,ANTH,AKP,AKL
      GO TO 1795
1785 WRITE(6,6104) JARR3(NOBB      ),(KNAME2(NOBB      ),J),J=1,5),
      LJSEQ3(NOBB      ),ALB,ALBH,ANTH,LBIWC(NOBB      ),AKP,AKC
1795 CONTINUE
      IF(NZT.GE.NLN)GO TO 1765
      IF(NZT.EQ.45)STOP 23
      GO TO 1765
1790 CONTINUE
      NBT=0
      IF(OPT(21).EQ.2)GO TO 2750
2720 NZT=0
      NLN=38
      WRITE(6,6135)      (NAME(J),J=1,4),JBNJNU
      WRITE(6,6138)
      IF(OPT(28).EQ.0)GO TO 2725
      IF(OPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 2725
      NLN=34
      WRITE(6,6137) ANTH,EOLV,NEN
      GO TO 2726
2725 CONTINUE
      WRITE(6,6210)
2726 CONTINUE
      CALL WRITE1(I2,KKI,ND1,NU2,NTOT,NPLT,NLN)
      IF(OPT(28).EQ.1)GO TO 2727
      IF(OPT(28).GE.2.AND.NTRIC.NE.0)GO TO 2727
      WRITE(6,6040)
      WRITE(6,6041)
      GO TO 2728
2727 CONTINUE
      WRITE(6,6140)
      WRITE(6,6141)
2728 CONTINUE
      IF(OPT(28).EQ.1)GO TO 2755
      IF(OPT(28).GE.2.AND.NTRIC.NE.0)GO TO 2755
      DO 2730 IL=1,45
      NZT=NZT+1
      NBT=NBT+1
      IF(NBT.GT.JE)GO TO 2750
      READ(50) ALB,ALBH,AHP,AHC,NUB
      LW=INT(ALVP(NOBB))
      LC=INT(ALVWC(NOBB))
      LAP=INT(AHP)
      LAC=INT(AHC)
```

1 RELEASE 2.0

WRITE3

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      KM=LAP-LW
      KMC=LAC-LC
      WRITE(6,6042)  JOBC(NDB      ),(KNAME2(INJ(NDB      ),J),J=1,5),
1 NUMP(NDB      ),LAP,LAC,LM,LC,KM,KMC
      IF(NZT.GE.NLN)GO TO 2720
2730 CONTINUE
2755 CONTINUE
      DU 2735 IL=1,45
      NZT=NZT+1
      NBT=NBT+1
      IF(NBT.GT.JE)GO TO 2750
      READ(50) ALB,ALBH,AMP,ANC,NUB
      AM=ALVP(NDB)
      AC=ALVPHC(NDB)
      KM=AMP-AM
      KC=ANC-AC
      WRITE(6,6142)  JOBC(NDB      ),(KNAME2(INJ(NDB      ),J),J=1,5),
1 NUMP(NDB      ),AMP,ANC,AM,AC,KM,KC
      IF(NZT.GE.NLN)GO TO 2720
2735 CONTINUE
2750 CONTINUE
      IF(UPT(21).EQ.1)GO TO 2790
      NBT=0
2760 NLN=38
      NZT=0
      WRITE(6,6135)  (NAME1(J),J=1,4),JBNJNU
      IF(UPT(28).EQ.0)GO TO 2758
      IF(UPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 2758
      NLN=34
      WRITE(6,6137) ANTH,EQLV,NEV
      GO TO 2759
2758 CONTINUE
      WRITE(6,6210)
2759 CONTINUE
      WRITE(6,6138)
      CALL WRITE1(IIZ,KKI,ND1,ND2,NTDT,NPLT,NLN)
      WRITE(6,6039)
      WRITE(6,6141)
2765 CONTINUE
      NZT=NZT+1
      NBT=NBT+1
      IF(NBT.GT.JE)GO TO 2790
      READ(50) ALB,ALBH,AMP,ANPC,NUB
      AKP=ALB-ALB2(NUB)
      AKC=ALBH-ALB2HC(NUB)
      IF(ALB2(NUB).LT.ANTH)AKP=ALB-ANTH
      IF(ALB2HC(NUB).LT.ANTH)AKC=ALBH-ANTH
      IF(AKP.LT.0.0)AKP=0.0
```

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IF(AKC.LT.0.0)AKC=0.0
IF(ALB.LT.ANTH.AND.ALBN.LT.ANTH)GO TO 2770
IF(ALB.LT.ANTH)GO TO 2775
IF(ALB2(NOB      ).LT.ANTH.AND.ALB2HC(NOB      ).LT.ANTH)GO TO
1275U
IF(ALB2(NOB      ).LT.ANTH)GO TO 2785
WRITE(6,6044)  JOB(NOB      ),(KNAME2(NJ(NOB      ),J),J=1,5),
1 NUMP(NOB      ),ALB,ALBN,ALB2(NOB      ),ALB2HC(NOB      ),AKP,
2AKC
GO TO 2795
2770 WRITE(6,6101)  JOB(NOB      ),(KNAME2(NJ(NOB      ),J),J=1,5),
1NUMP(NOB      ),ANTh,ANTh,ANTh,ANTh,AKP,AKC
GO TO 2795
2775 WRITE(6,6102)  JOB(NOB      ),(KNAME2(NJ(NOB      ),J),J=1,5),
1NUMP(NOB      ),ANTh,ALBN,ANTh,ALB2HC(NOB      ),AKP,AKC
GO TO 2795
2780 WRITE(6,6103)  JOB(NOB      ),(KNAME2(NJ(NOB      ),J),J=1,5),
1NUMP(NOB      ),ALB,ALBN,ANTh,ANTh,AKP,AKC
GO TO 2795
2785 WRITE(6,6104)  JOB(NOB      ),(KNAME2(NJ(NOB      ),J),J=1,5),
1NUMP(NOB      ),ALB,ALBN,ANTh,ALB2HC(NOB      ),AKP,AKC
2795 CONTINUE
IF(NZT.GE.NLNI)GO TO 2760
IF(NZT.EQ.45)STOP 23
GO TO 2765
2790 CONTINUE
1800 CONTINUE
6034 FORMAT(///12X,70H*****
1***** //52X,30HBEFORE CHANGE AFTER CHANGE//
212X,22HTOTAL NO. OF PERSONNEL,22X,16,12X,16/12X,36HTOTAL NO OF PER
3S. WITH LEQ>75 (MEAN), 8X,16,12X,16/12X,36HTOTAL NO OF PER>
4WITH LEQ>75 (M.C.),8X,16,12X,16/12X,36HTOTAL NO OF PER. WITH LEQ>
590 (MEAN), 8X,16,12X,16/12X,36HTOTAL NO OF PER. WITH LEQ>90 (M
6C.), 8X,16,12X,16/ 12X,32HLEVEL WEIGHTED POPULATION (MEAN),
611X,F9.1,10X,F9.1/12X,32HLEVEL WEIGHTED POPULATION (M.C.),11X,
7F9.1,10X,F9.1//
812X,70H*****
9***** //)
6035 FORMAT(1M1 //12X,9A4,17X,12H80M JOB NO. ,16//29X,33HEFFECT O
1F EQUIPMENT NOISE CONTRL/)
6036 FORMAT(12X,6HEQUIP.,6X,20H EQUIPMENT ,3X,7HNO. OF ,3X,
114HMEAN LEQ (DBA),3X,10HNOISE RED./12X,6H CODE ,6X,20H DESCRIPT
2ION ,3X,7HSAMPLES,3X,6HBEFORE,2X,6HAFTER ,3X,10H (DBA) //)
6037 FORMAT(13X,14,7X,5A4,4X,15,4X,F5.1,3X,F5.1,7X,F4.1)
6038 FORMAT(123X,45HEFFELT OF NOISE CONTROL ON PERSONNEL EXPUSURE/)
6039 FORMAT(150X,33H----- SOUND LEVEL -----)
6040 FORMAT(150X,33H--- LEVEL WEIGHTED POPULATION ---)
6041 FORMAT(12X,4H JOB,2X,20H JOB DESCRIPTION ,2X,5HNO.OF, 5X,6HBEFU

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1RE,8X,5HAFTER,9A,6HCHANGE/12X,4HCODE,24X,5HPERS.,2X,4HMEAN,3X,
14HM.C.,3X,4HMEAN,3A,4HM.C.,3X,4HMEAN,3A,4HM.C./)
6042 FORMAT(11X,15,2X,5A4,I6,4I7,1X,16,1X,16)
6043 FORMAT(///)
6044 FORMAT(11X,15,2X,5A4,I6, 2(2X,F5.1,2X,F5.1),2X,F5.1,1X,F5.1)
6051 FORMAT(//22X,50HBACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)/
1)
6052 FORMAT(//22X,47HEQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED/)
6101 FORMAT(11X,15,2X,5A4,I6, 2X,1H<,F4.1,2X,1H<,F4.1,2X,1H<,F4.1,
12X,1H<,F4.1,2X,F5.1,1X,F5.1)
6102 FORMAT(11X,15,2X,5A4,I6, 2X,1H<,F4.1,2X,F5.1,2X,1H<,F4.1,2X,
1F5.1,2X,F5.1,1X,F5.1)
6103 FORMAT(11X,15,2X,5A4,I6, 2X,F5.1,2X,F5.1,2X,1H<,F4.1,2X,1H<,F4.1,
1,2X,F5.1,1X,F5.1)
6104 FORMAT(11X,15,2X,5A4,I6, 2X,F5.1,2X,F5.1,2X,1H<,F4.1,2X,F5.1,
12X,F5.1,1X,F5.1)
6134 FORMAT(//12X,70H*****
1*****//51X,30HBEFORE CHANGE AFTER CHANGE//
215X,34HTOTAL NUMBER OF PERSONNEL = ,6X,I6,11X,I6/
315X,34HTOTAL NUMBER OVEREXPOSED (MEAN) = ,6X,I6,11X,I6/
415X,34HTOTAL NUMBER OVEREXPOSED (W.C.) = ,6X,I6,11X,I6//
512X,70H*****
6*****
6135 FORMAT(1H1/////12X,9A4,15X,12HBBN JOB NO. ,I6/)
6136 FORMAT(28X,35HPERSONNEL NOISE EXPOSURE AND IMPACT/)
6137 FORMAT(30X,24HTHRESHOLD LEVEL = ,F5.1,4H DBA/
1 30X,25H8-HR PERMISSIBLE LEVEL = ,F4.1,4H DBA/
2 30X,25HEXCHANGE RATE = ,I2,4H DBA/)
6138 FORMAT(//19X,54HEFFELT OF NOISE CONTROL UN PERSONNEL EXPOSURE AVERA
IGES/)
6140 FORMAT(//50X,33H----- DAILY NOISE DOSE -----)
6141 FORMAT(12X,4H JOB,2X,20H JOB DESCRIPTION ,2X,5HNO.OF, 5X,6HBEFO
1KE,8X,5HAFTER,8X,6HCHANGE/12X,4HCODE,24X,5HPERS.,2X,4HMEAN,3X,
14HM.C.,3X,4HMEAN,3X,4HM.C.,3X,4HMEAN,2X,4HM.C./)
6142 FORMAT(11X,15,2X,5A4,I6, 2(2X,F5.2,1A,F6.2),2X,F5.2,1X,F5.2)
6306 FORMAT(123X,44HPERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES/)
6210 FORMAT(40X,12HEPA CRITERIA/)
RETURN
END

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APPENDIX C
Sawmill Industry Input Data

In this appendix the computer model input data for each of the nine plants are listed. Also included are the results of the data averaging process for both the equipment noise data and personnel work assignments.

Table C-1 consists of a list of jobs or a list of personnel categories, one line for each category. Table C-2 contains a list of equipment, one line for each equipment type. The contents of these tables are directly related to input data, in particular card groups five and six discussed in Appendix B. These first two tables are applicable to all of the nine plants.

For each of the nine plants we have six additional tables. The first table of each group of six is the equipment noise data for the particular plant, listed as appearing in the model input data. The first column contains a four digit code unique to the equipment type and listed in table C-2. The second column is a brief description of the equipment type and the third column is the measured noise level, usually at the operator location.

The second table in each group of tables (one group of tables for each plant) contains noise level data for background types. The first three columns are similar to the corresponding columns in the previous table. Subsequent columns indicate how much certain equipment types contribute to the noise level. This is explained more fully in Appendix B, section B.2.

The third table in each group of tables contains results derived from averaging data for the same equipment or background type. The third column is the number of samples used in the average, the fourth column contains the mean value of the noise level data and the fifth column contains the standard deviation.

The fourth table contains the noise level data averages for the general equipment classifications of table 5-7. These data are derived from the data for individual equipment types listed in the previous table. If no data exist for a general classification, it is omitted from the table. Background levels are excluded from the noise data averages for the general classifications.

The fifth table is a list of the input personnel work assignment data for the particular plant. The format is similar to that described in Appendix B. Columns 5, 7 and 9 indicate the % of time spent, by the personnel in the category described in columns one and two, on particular tasks described by the preceding four digit equipment or background code. Up to four lines of data in columns 4 to 9 may exist for each personnel category. Column three contains the number of personnel in each job category.

The sixth table is derived from the data in the fifth table described above. If more than one item of data exists for the same personnel category, the data are either separated into separate subcategories or combined into a single subcategory. If the data involve the same equipment or background types but different assignment times then they are averaged into one sub category. If the data involve different equipment or background types, they are separated into different personnel subcategories. To allow this to occur,

an extra two digits are added to the right hand side of each three digit job code, allowing up to 99 subcategories for each personnel category. For data combined into the same subcategory a mean and standard deviation for the assignment time to each task (background or equipment type) is calculated. The standard deviation number is used in the worst case estimate described in Section 5 of this report.

The third, fourth and sixth tables described above are also generated for the average results for the entire nine plants and appear at the end of this appendix.

Table C-1 (Cont'd) LIST OF JOBS

JOB CODE	JOB DESCRIPTION
24101	SAWMILL SUPERVISOR
24104	PLANER SUPERVISOR
24107	POND SURTER
24108	LOG SURTER
24111	LOG CARRIER OPER
24114	DEBARKER OPERATOR
24117	DECK SCALER
24120	LOTT-OFF SAW OPERATOR
24123	SAWYER
24127	TAIL SAWYER
24128	QUADSAM TAIL SAWYER
24131	GANG SAW OPERATOR
24133	SLAB BOARD PULLER
24134	EDGER OPERATOR
24137	CHIPPER OPERATOR
24138	HOG OPERATOR
24140	RESAW OPERATOR
24143	UNSCRAMBLE OPERATOR
24144	LUMBER DIVERTER
24145	GREEN CHAIN OPERATOR
24148	TRIMMER OPERATOR
24151	GREEN CHAIN PULLER
24154	STALKER-GREEN
24155	STILKERMAN-GREEN
24156	UNIPAC OPERATOR
24159	TRANSFER OPERATOR
24160	KILN OPERATOR
24161	UNSTACKER-DRY
24162	UNSTACKER PULLER
24163	GRAJER/SURTING CHAIN
24167	PLANER OPERATOR
24168	PLANER SET-UP MAN
24173	GRADER/PLANER MILL
24175	DRY CHAIN PULLER
24174	BANJER OPERATOR
24181	CHECKERS
24182	TALLYMEN
24185	RIPSAW OPERATOR
24186	RIPSAW OFFBEARER
24191	SPECIALTY RESAW OFFS

Table C-1. LIST OF JOBS

JOB CODE	JOB DESCRIPTION
24190	SPECIALTY RESAM OPER
24196	MOULDER FEEDER
24197	MOULDER OFFFEAKER
24201	LUMBER CARRIER OPER
24202	FORKLIFT OPERATOR
24207	RAIL CAR LOADER
24211	MILLWRIGHT/GENERAL
24212	MILLWRIGHT/SAWMILL
24213	MILLWRIGHT/PLANER
24216	SHIPMAN/GENERAL
24217	WELDER
24219	MACHINISTS
24223	MECHANICS
24226	ELECTRICIANS
24233	CARPENTERS
24238	PIPE-FITTERS
24244	FILERS
24245	WILK
24248	POWERHOUSE OPERATOR
24261	CLEAN-UP MAN/REGULAR
24262	CLEAN-UP MAN/DOWN TR
24265	LABJER
24266	HELPER

Table C-2 (Cont'd) LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1644	RESAW-LARGE	GENERAL	GENERAL
1645	BACK/RESAW	RESAW	
1646	RESAW-LARGE	MANUAL/PINCH KULL	IDLE/ENCLOSED
1647	RESAW-LARGE	MANUAL/PINCH KULL	OPERATING/ENCL
1648	RESAW-LARGE	MANUAL/PINCH KULL	IDLE
1649	RESAW-LARGE	MANUAL/PINCH KULL	OPERATING
1650	RESAW-LARGE	MANUAL/LINE BAR	IDLE/ENCLOSED
1651	RESAW-LARGE	MANUAL/LINE BAR	OPERATING/ENCL
1652	RESAW-LARGE	MANUAL/LINE BAR	IDLE
1653	RESAW-LARGE	MANUAL/LINE BAR	OPERATING
1654	RESAW-LARGE	DOUBLE/AUTOMATIC	OPERATING/ENCL
1655	RESAW-LARGE	DOUBLE/AUTOMATIC	IDLE/ENCLOSED
1656	RESAW-LARGE	AUTO-DOUBLE	OPERATING
1657	RESAW-LARGE	AUTO-DOUBLE	IDLE
1658	RESAW-LARGE	AUTO-SINGLE/PINCH	OPERATING/ENCL
1659	RESAW-LARGE	AUTO-SINGLE/PINCH	IDLE/ENCLOSED
1660	RESAW-LARGE	AUTO-SINGLE/PINCH	OPERATING
1661	RESAW-LARGE	AUTO-SINGLE/PINCH	IDLE
1664	TRIMMER	GENERAL	GENERAL
1665	BACK/TRIMMER	TRIMMER	SAMMILL
1666	TRIMMER	MANUAL	IDLE
1667	TRIMMER	MANUAL	OPERATING
1669	TRIMMER	AUTOMATIC	IDLE/ENCLOSED
1670	TRIMMER	AUTOMATIC	OPERATING/ENCL
1671	TRIMMER	AUTOMATIC	IDLE
1672	TRIMMER	AUTOMATIC	OPERATING
1674	TRIMMER	AUTO SPECIES MARK	OPERATING
1679	GREEN CHAIN CONVY	GENERAL	GENERAL
1680	BACK/GREEN CHAIN	GREEN CHAIN	
1681	GREEN CHAIN CONVY	MANUAL	PULLER
1682	GREEN CHAIN CONVY	AUTOMATIC	PULLER
1683	GREEN CHAIN CONVY	AUTOMATIC	LUMBER DIVERTER
1685	KILN	GENERAL	GENERAL
1686	BACK/KILNCONTL RM	KILN CONTROL ROOM	
1687	KILN	AUTOMATIC	OPERATING
1689	BACK/KILN CHAIN	KILN CHAIN CONVYR	
1690	KILN CHAIN CONVYR	GREEN	STACKEE
1691	KILN CHAIN CONVYR	GREEN	STICKERMAN
1692	KILN CHAIN CONVYR	DRY	UNSTACKEE
1693	KILN CHAIN CONVYR	DRY	PULLER

Table C-2. LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1000	BAGGRJUND	NOISE DELTA 7000A	GENERAL
1513	WHEEL SKINDER	MANUAL/CLEC	
1600	DEBARKER	GENERAL	GENERAL
1601	BAG/DEBARKER	DEBARKER	
1602	DEBARKER	RING	IDLE/ENCLOSED
1603	DEBARKER	RING	OPERATING/ENCL
1604	DEBARKER	RING	IDLE
1605	DEBARKER	RING	OPERATING
1606	DEBARKER	ROSSING	IDLE/ENCLOSED
1607	DEBARKER	ROSSING	OPERATING/ENCL
1608	DEBARKER	ROSSING	IDLE
1609	DEBARKER	ROSSING	OPERATING
1610	CUT-OFF SAM	GENERAL	GENERAL
1611	BAG/CJT-OFF	CJT-OFF SAM	
1612	CUT-OFF SAM	CIRCULAR	IDLE/ENCLOSED
1613	CUT-OFF SAM	CIRCULAR	OPERATING/ENCL
1614	CUT-OFF SAM	CIRCULAR	IDLE
1615	CUT-OFF SAM	CIRCULAR	OPERATING
1616	CUT-OFF SAM	CHAIN	IDLE/ENCLOSED
1617	CUT-OFF SAM	CHAIN	OPERATING/ENCL
1618	CUT-OFF SAM	CHAIN	IDLE
1619	CUT-OFF SAM	CHAIN	OPERATING
1620	HEADRIG	GENERAL	GENERAL
1621	BAG/HEADRIG	HEADRIG	
1622	HEADRIG	BANDSAB/SANYEK	IDLE/ENCLOSED
1623	HEADRIG	BANDSAB/SANYEK	OPERATING/ENCL
1624	HEADRIG	BANDSAB/SANYEK	IDLE
1625	HEADRIG	BANDSAB/SANYEK	OPERATING
1626	HEADRIG	BANDSAB/TAI	IDLE
1627	HEADRIG	BANDSAB/TAI	OPERATING
1629	EDGER	GENERAL	GENERAL
1630	BAG/EDGER	EDGER	
1631	EDGER	MANUAL	GENERAL/ENCLOSED
1632	EDGER	MANUAL	IDLE/ENCLOSED
1633	EDGER	MANUAL	OPERATING/ENCL
1635	EDGER	MANUAL	IDLE
1636	EDGER	MANUAL	OPERATING
1637	EDGER	AUTOMATIC	IDLE
1638	EDGER	AUTOMATIC	OPERATING
1639	EDGER	AUTOMATIC	OUTFEED

Table C-2 (Cont'd) LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1694	KILN CHAIN CONVYR	DRY	STACKEK
1695	KILN CHAIN CONVYR	DRY CHAIN	TALLYMAN
1696	KILN CHAIN CONVYR	DRY CHAIN	SURTING GRADEK
1699	PLANER	GENERAL	GENERAL
1700	BACK/PLANER	PLANER	GRADEK AREA
1701	PLANER	3FT	IDLE
1702	PLANER	3FT	OPERATING
1703	PLANER	MANUAL	IDLE
1704	PLANER	MANUAL	OPERATING
1710	PLANER/ENCL	AUTOMATIC/INFEED	IDLE
1711	PLANER/ENCL	AUTOMATIC/INFEED	OPERATING
1712	PLANER	AUTOMATIC/INFEED	IDLE
1713	PLANER	AUTOMATIC/INFEED	OPERATING
1715	PLANER/ENCL	AUTOMATIC/GRADEKS	IDLE
1716	PLANER/ENCL	AUTOMATIC/GRADEKS	OPERATING
1717	PLANER	AUTOMATIC/GRADEKS	IDLE
1718	PLANER	AUTOMATIC/GRADEKS	OPERATING
1724	MOULDER	GENERAL	GENERAL
1725	BACK/MOULDER	MOULDER	
1726	MOULDER/ENCL	AUTO/INFEED/INFD	IDLE
1727	MOULDER/ENCL	AUTO/INFEED/INFD	OPERATING
1728	MOULDER	AUTO/INFEED/INFD	IDLE
1729	MOULDER	AUTO/INFEED/INFD	OPERATING
1730	MOULDER/ENCL	AUTO/INFEED/OUTFD	IDLE
1731	MOULDER/ENCL	AUTO/INFEED/OUTFD	OPERATING
1732	MOULDER	AUTO/INFEED/OUTFD	IDLE
1733	MOULDER	AUTO/INFEED/OUTFD	OPERATING
1734	MOULDER	3FT	IDLE
1735	MOULDER	3FT	OPERATING
1739	DRY CHAIN CONVEYR	GENERAL	GENERAL
1740	BACK/DRY CHAIN	DRY CHAIN	
1741	DRY CHAIN CONVEYR	MANUAL	PULLER
1742	DRY CHAIN CONVEYR	AUTOMATIC	PULLER
1747	RAILCAR LOADER	GENERAL	GENERAL
1748	BACK/RAILCAR LOAD		
1749	STACK BANDER	GENERAL	GENERAL
1750	BACK/STACK BANDER	BANDING MACHINE	
1751	STACK BANDER	GENERAL	IDLE
1752	STACK BANDER	GENERAL	OPERATING
1754	RESAW-SPECIALTY	GENERAL	GENERAL

Table C-2 (Cont'd) LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1760	BACK/SPEC RESAW	SPECIALTY RESAW	PLANER MILL
1761	RESAW-SPEC/ENCL	SINGLE BAND/INFD	IDLE
1762	RESAW-SPEC/ENCL	SINGLE BAND/INFD	OPERATING
1763	RESAW-SPECIALTY	SINGLE BAND/INFD	IDLE
1764	RESAW-SPECIALTY	SINGLE BAND/INFD	OPERATING
1765	RESAW-SPEC/ENCL	SINGLE BAND/OUTFD	IDLE
1766	RESAW-SPEC/ENCL	SINGLE BAND/OUTFD	OPERATING
1767	RESAW-SPECIALTY	SINGLE BAND/OUTFD	IDLE
1768	RESAW-SPECIALTY	SINGLE BAND/OUTFD	OPERATING
1775	CONVEYOR	GENERAL	GENERAL
1777	BACK/CONVEYOR/GEN		
1779	CHIPPER	GENERAL	GENERAL
1780	BACK/CHIPPER	CHIPPER	
1781	CHIPPER/ENCL	INFEED	IDLE
1782	CHIPPER/ENCL	INFEED	OPERATING
1783	CHIPPER	INFEED	IDLE
1784	CHIPPER	INFEED	OPERATING
1785	HOG	GENERAL	GENERAL
1786	BACK/HOG		
1787	HOG/ENCL	INFEED	IDLE
1788	HOG/ENCL	INFEED	OPERATING
1789	HOG	INFEED	IDLE
1790	HOG	INFEED	OPERATING
1793	BACK/POWERHOUSE	POWERHOUSE	
1794	POWERHOUSE	BJILEK	GENERAL
1796	POWERHOUSE	GENERATORS	GENERAL
1798	SAWMILL OFFICE	FJKEMAN/SUPERVISK	GENERAL
1799	BACK/OFFICE/SAWML	SAWMILL OFFICE	
1800	FORKLIFT	GENERAL	GENERAL
1801	BACK/FORKLIFT		
1802	FORKLIFT	ENCLOSd	GENERAL
1808	LOG CARRIER	950 CARRIER	GENERAL
1809	BACK/LOG CARRIER	950 CARRIER	
1810	LUMBER CARRIER	STRADDLE	GENERAL
1811	BACK/LUMBER CARRY	STRADDLE CARRIER	
1814	BACK/TRANSFER RM	TRANSFER ROOM	
1815	TRANSFER CARRIER	RAIL	GENERAL
1816	TRANSFER CARRIER	RAIL	IDLE
1819	QUADSAW	GENERAL	GENERAL
1820	BACK/QUAD SAW	QUAD SAW	

Table C-2 (Cont'd) LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1821	QUAJSAN	AUTO/OPERATOR	IDLE/ENCLOSED
1822	QUAJSAN	AUTO/OPERATOR	OPERATING/ENCL
1823	QUAJSAN	AUTO/TAIL	IDLE
1824	QUAJSAN	AUTO/TAIL	OPERATING
1829	BACK/GANG SAW	GANG SAW	
1830	GANG SAW	AUTO/INFEEED/OPER	IDLE/ENCLOSED
1831	GANG SAW	AUTO/INFEEED/OPER	OPERATING/ENCL
1846	RIPSAW-SPECIALTY	GENERAL	GENERAL
1849	BACK/SPEC RIPSAW	RIPSAW	
1850	RIPSAW-SPECIALTY	MANUAL/INFEEED	IDLE
1851	RIPSAW-SPECIALTY	MANUAL/INFEEED	OPERATING
1852	RIPSAW-SPECIALTY	MANUAL/OFFBEAKER	IDLE
1853	RIPSAW-SPECIALTY	MANUAL/OFFBEAKER	OPERATING
1868	STORAGE	GENERAL	GENERAL
1869	BACK/STORAGE	BACK/STORAGE	
1870	BASEMENT	GENERAL	GENERAL
1871	BACK/BASEMENT	BASEMENT	
1872	MACHINE SHOP	GENERAL	GENERAL
1873	BACK/MACHINE SHOP	MACHINE SHOP	
1874	CARPENTRY SHOP	GENERAL	GENERAL
1875	BACK/CARPENTRY SHOP	CARPENTER SHOP	
1876	ELECTRIC SHOP	GENERAL	GENERAL
1877	BACK/ELECT SHOP	ELECTRIC SHOP	
1878	PIPE SHOP	GENERAL	GENERAL
1879	BACK/PIPE SHOP	PIPE SHOP	
1880	FILEROOM	GENERAL	GENERAL
1881	BACK/FILEROOM	FILEROOM	
1882	MECHANIC SHOP/GAR	GENERAL	GENERAL
1883	BACK/MECHANIC SHP	MECHANIC SHOP	GARAGE

PLANT NO. 1

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9635

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1965

EQUIP. CODE	GENERIC NAME	LEW CBA
1810	LUMBER CARRIER	04.0
1810	LUMBER CARRIER	06.0
1810	LUMBER CARRIER	08.0
1808	LOG CARRIER	40.0
1802	FORKLIFT	00.0
1798	SAWMILL OFFICE	70.0
1796	POWERHOUSE	02.0
1794	POWERHOUSE	04.0
1789	HUG	42.0
1784	CHIPPER	100.0
1784	CHIPPER	100.0
1783	CHIPPER	40.0
1783	CHIPPER	42.0
1776	CONVEYOR	08.0
1766	RESAW-SPEC/ENCL	04.0
1766	RESAW-SPEC/ENCL	41.0
1764	RESAW-SPECIALTY	09.0
1762	RESAW-SPEC/ENCL	40.0
1762	RESAW-SPEC/ENCL	00.0
1752	STACK BANDER	02.0
1751	STACK BANDER	70.0
1747	RAILCAR LOADER	70.0
1747	RAILCAR LOADER	77.0
1741	DRY CHAIN CONVEYR	00.0
1741	DRY CHAIN CONVEYR	04.0
1741	DRY CHAIN CONVEYR	00.0
1741	DRY CHAIN CONVEYR	00.0
1735	MOULDER	100.0
1731	MOULDER/ENCL	04.0
1727	MOULDER/ENCL	00.0
1726	MOULDER/ENCL	70.0
1716	PLANER/ENCL	00.0
1716	PLANER/ENCL	44.0
1711	PLANER/ENCL	41.0
1711	PLANER/ENCL	45.0
1702	PLANER	110.0
1702	PLANER	100.0
1702	PLANER	110.0
1694	KILN CHAIN CONVEYR	02.0

ENVIRONMENTAL PROTECTION AGENCY

SEN JOB NO. 903

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEW JDA
1693	KILN CHAIN CONVYR	72.0
1692	KILN CHAIN CONVYR	68.0
1691	KILN CHAIN CONVYR	66.0
1690	KILN CHAIN CONVYR	66.0
1682	GREEN CHAIN CONVY	65.0
1682	GREEN CHAIN CONVY	63.0
1674	TRIMMER	95.0
1672	TRIMMER	91.0
1672	TRIMMER	66.0
1672	TRIMMER	66.0
1670	TRIMMER	61.0
1670	TRIMMER	63.0
1669	TRIMMER	71.0
1647	RESAW-LARGE	73.0
1646	RESAW-LARGE	66.0
1636	EDGER	100.0
1636	EDGER	99.0
1635	EDGER	96.0
1635	EDGER	92.0
1627	HEADRIC	90.0
1626	HEADRIC	90.0
1625	HEADRIC	60.0
1622	HEADRIC	63.0
1613	CUT-OFF SAW	99.0
1613	CUT-OFF SAW	102.0
1612	CUT-OFF SAW	67.0
1607	DEBARNER	72.0
1606	DEBARNER	65.0

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1960

BACK. GENERAL NAME CODE	LEG DBA	EQUIPMENT CONTRIBUTION TO CODE CONTR.	BACKGROUN CODE CONTR.	BACKGROUN CODE CONTR.
1877 BACK/ELECT SHOP	75.0	1000 1.00	0 0.0	0 0.0
1873 BACK/MACHINE SHOP	65.0	1000 1.00	0 0.0	0 0.0
1871 BACK/BASERENT	64.0	1636 0.40	1623 0.60	0 0.0
1869 BACK/STORAGE	65.0	1000 1.00	0 0.0	0 0.0
1780 BACK/CHIPPER	90.0	1784 0.40	1774 0.10	0 0.0
1760 BACK/SPEC RESAM	92.0	1762 0.50	1766 0.50	0 0.0
1740 BACK/DAY CHAIN	80.0	1741 0.10	1674 0.70	1644 0.20
1725 BACK/MOULDERS	92.0	1735 0.60	1727 0.10	1731 0.10
1700 BACK/PLANEK	44.0	1702 0.60	1711 0.10	1716 0.10
1689 BACK/KILN CHAIN	80.0	1640 0.40	1641 0.30	1662 0.30
1680 BACK/GREEN CHAIN	81.0	1682 0.60	1690 0.30	1691 0.10
1665 BACK/TRIMMER	82.0	1670 0.60	1682 0.20	0 0.0
1665 BACK/TRIMMER	90.0	1647 0.20	1672 0.60	0 0.0
1630 BACK/EDDER	92.0	1636 0.60	1623 0.40	0 0.0
1621 BACK/HEADKID	65.0	1766 0.20	1623 0.60	0 0.0
1621 BACK/HEADKID	45.0	1736 0.30	1623 0.50	1622 0.20

ENVIRONMENTAL PROTECTION AGENCY

OSN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1702	PLANER	3	109.3	1.15
1735	MOULDER	1	105.0	0.0
1784	CHIPPER	2	103.0	4.24
1613	CUT-OFF SAW	2	100.5	2.12
1636	EDGER	2	99.5	0.71
1626	HEADRIG	1	98.0	0.0
1674	TRIMMER	1	95.0	0.0
1700	BACK/PLANER	1	94.0	0.0
1647	RESAW-LARGE	1	93.0	0.0
1711	PLANER/ENCL	2	93.0	2.53
1630	BACK/EDGER	1	92.0	0.0
1725	BACK/MOULDER	1	92.0	0.0
1760	BACK/SPEC RESAW	1	92.0	0.0
1789	HUG	1	92.0	0.0
1635	EDGER	2	91.0	1.41
1716	PLANER/ENCL	2	91.0	4.0
1783	CHIPPER	2	91.0	1.41
1621	BACK/HEADRIG	2	90.0	7.07
1627	HEADRIG	1	90.0	0.0
1766	RESAW-SPEC/ENCL	2	90.0	1.41
1780	BACK/CHIPPER	1	90.0	0.0
1731	MOULDER/ENCL	1	89.0	0.0
1764	RESAW-SPECIALTY	1	89.0	0.0
1672	TRIMMER	3	88.3	2.52
1646	RESAW-LARGE	1	88.0	0.0
1692	KILN CHAIN CONVYR	1	88.0	0.0
1727	MOULDER/ENCL	1	88.0	0.0
1762	RESAW-SPEC/ENCL	2	88.0	2.53
1612	CUT-OFF SAW	1	87.0	0.0
1623	HEADRIG	1	86.0	0.0
1665	BACK/TRIMMER	2	86.0	5.66
1690	KILN CHAIN CONVYK	1	86.0	0.0
1691	KILN CHAIN CONVYK	1	86.0	0.0
1682	GREEN CHAIN CONVY	2	84.0	1.41
1794	POWERHOUSE	1	84.0	0.0
1871	BACK/BASEMENT	1	84.0	0.0
1788	BACK ONLY CONTR.	0	84.0	7.07
1622	HEADRIG	1	83.0	0.0
1741	DRY CHAIN CONVEYR	4	82.5	3.00
1670	TRIMMER	2	82.0	1.41

ENVIRONMENTAL PROTECTION AGENCY

80N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEG)

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN _dBA (UBA)	STU. DEV.
1694	KILN CHAIN CONVYR	1	82.0	0.0
1752	STACK BANDER	1	82.0	0.0
1796	POWERHOUSE	1	82.0	0.0
1680	BACK/GREEN CHAIN	1	81.0	0.0
1689	BACK/KILN CHAIN	1	80.0	0.0
1740	BACK/DRY CHAIN	1	80.0	0.0
1802	FORKLIFT	1	80.0	0.0
1726	MOULDER/ENCL	1	78.0	0.0
1751	STACK BANDER	1	76.0	0.0
1877	BACK/ELECT SHOP	1	75.0	0.0
1607	DEBARKER	1	72.0	0.0
1693	KILN CHAIN CONVYR	1	72.0	0.0
1669	TRIMMER	1	71.0	0.0
1606	DEBARKER	1	65.0	0.0
1869	BACK/STORAGE	1	65.0	0.0
1873	BACK/MACHINE SHOP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1699	PLANEK	7	99.4	2.68
1779	CHIPPER	4	97.0	4.47
1610	CUT-OFF	3	96.0	2.12
1629	EDGER	4	95.3	1.12
1785	MUG	1	92.0	7.07
1644	RESAW/LARGE	2	90.5	0.0
1808	LUG CARRIER	1	90.0	0.0
1724	MULLER	4	90.0	0.0
1620	HEADRIC	4	89.3	0.0
1759	RESAW/SPECIALTY	5	89.0	2.24
1776	CUNVEYOR/GEN	1	88.0	0.0
1810	LUMBER CARRIER	3	88.0	2.00
1664	TRIMMER	7	85.0	2.21
1679	GREEN CHAIN	2	84.0	1.41
1792	POWERHOUSE	2	83.0	0.0
1688	WILN CHAIN	5	82.8	0.0
1739	DRY CHAIN	4	82.5	3.0
1800	FURKLIFT	1	80.0	0.0
1744	STACK BANDER	2	79.0	0.0
1747	RAIL CAR LOAD	2	76.5	0.71
1798	SAWMILL OFFICE	1	70.0	0.0
1600	DEBARKER	2	68.5	0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 1

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
262	CLEAN-UP MAN/DOWN TM	3	1776	100.0	0	0.0	0	0.0
261	CLEAN-UP MAN/REGULAR	2	1784	20.0	1783	20.0	1776	80.0
248	POWERHOUSE OPERATOR	12	1794	50.0	1796	50.0	0	0.0
244	FILERS	6	1000	100.0	0	0.0	0	0.0
238	PIPE-FITTERS	2	1000	50.0	1776	15.0	1621	15.0
			1630	10.0	1700	10.0	0	0.0
233	CARPENTERS	4	1000	50.0	1776	15.0	1621	15.0
			1630	10.0	1700	10.0	0	0.0
228	ELECTRICIANS	5	1677	25.0	1776	50.0	1621	10.0
			1630	5.0	1700	10.0	0	0.0
223	MECHANICS	3	1000	100.0	0	0.0	0	0.0
219	MACHINISTS	3	1000	100.0	0	0.0	0	0.0
213	MILLWRIGHT/PLANER	3	1000	50.0	1702	10.0	1621	10.0
			1740	30.0	0	0.0	0	0.0
211	MILLWRIGHT/GENERAL	4	1621	85.0	1000	15.0	0	0.0
207	RAILCAR LOADER	9	1747	100.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	11	1500	100.0	0	0.0	0	0.0
201	LUMBER CARRIER OPER	5	1610	100.0	0	0.0	0	0.0
197	MOULDER OFFBEARER	2	1731	100.0	0	0.0	0	0.0
196	MOULDER FEEDER	2	1727	80.0	1726	20.0	0	0.0
191	SPECIALTY RESAW OFFB	2	1766	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9039

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242		PLANT NO: 1		DATE: 1960				
JOB CODE	JOB DESCRIPTION	NO OF PERKS.	TIME SPENT USING EQUIPMENT CODE	TIME	CODE	TIME	CODE	TIME
190	SPECIALTY RESAW OPER	2	1702	100.0	0	0.0	0	0.0
181	CHECKERS	6	1740	100.0	0	0.0	0	0.0
179	BANDER OPERATOR	3	1751	50.0	1752	50.0	0	0.0
176	DRY CHAIN PULLER	20	1741	100.0	0	0.0	0	0.0
173	GRADER/PLANEK MILL	16	1716	70.0	1700	30.0	0	0.0
168	PLANEK SET-UP MAN	2	1702	12.0	1711	44.0	1716	44.0
167	PLANEK OPERATOR	8	1711	70.0	1700	30.0	0	0.0
162	UNSTACKER PULLER	2	1693	100.0	0	0.0	0	0.0
161	UNSTACKER-DRY	2	1692	100.0	0	0.0	0	0.0
160	KILN OPERATOR	3	1600	100.0	0	0.0	0	0.0
156	UNIPAC OPERATOR	2	1694	100.0	0	0.0	0	0.0
155	STICKEMAN-GREEN	2	1691	100.0	0	0.0	0	0.0
154	STACKER-GREEN	4	1690	100.0	0	0.0	0	0.0
151	GREEN CHAIN PULLER	2	1682	100.0	0	0.0	0	0.0
148	TRIMMER OPERATOR	4	1670	50.0	1672	50.0	0	0.0
148	TRIMMER OPERATOR	4	1674	50.0	1670	50.0	0	0.0
145	GREEN CHAIN OPERATOR	4	1682	100.0	0	0.0	0	0.0
140	RESAW OPERATOR	2	1646	35.0	1647	65.0	0	0.0
137	CHIPPER OPERATOR	2	1784	60.0	1783	10.0	1621	30.0

ENVIRONMENTAL PROTECTION AGENCY

LDN JOB NO. 9655

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 1

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
134	EDGER OPERATOR	4	1635	50.0	1636	50.0	0	0.0
127	TAIL SAWYER	4	1626	20.0	1627	80.0	0	0.0
123	SAWYER	4	1622	20.0	1623	80.0	0	0.0
117	DECK SCALER	2	1613	5.0	1621	95.0	0	0.0
114	DEBARKER OPERATOR	2	1606	40.0	1607	60.0	0	0.0
111	LOG CARRIER OPER	1	1608	50.0	1609	50.0	0	0.0
108	LOG SORTER	2	1600	100.0	0	0.0	0	0.0
107	POND SORTER	4	1600	100.0	0	0.0	0	0.0
104	PLANER SUPERVISOR	4	1600	50.0	1700	50.0	0	0.0
101	SANMILL SUPERVISOR	3	1798	50.0	1776	20.0	1621	15.0
			1630	15.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

FEDERAL JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	3	1770	0.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1784	1.6	0.0
			1783	1.0	0.0
			1770	4.0	0.0
24800	POWERHOUSE OPERATOR	12	1794	4.0	0.0
			1790	4.0	0.0
24400	FILERS	6	1000	0.0	0.0
23800	PIPE-FITTERS	2	1000	4.0	0.0
			1770	1.2	0.0
			1621	1.2	0.0
			1630	0.8	0.0
			1700	0.0	0.0
23300	CARPENTERS	4	1000	4.0	0.0
			1770	1.2	0.0
			1621	1.2	0.0
			1630	0.0	0.0
			1700	0.0	0.0
22800	ELECTRICIANS	5	1677	2.0	0.0
			1770	4.0	0.0
			1621	0.8	0.0
			1630	0.4	0.0
			1700	0.0	0.0
22300	MECHANICS	3	1000	0.0	0.0
21900	MACHINISTS	3	1000	0.0	0.0
21300	MILLWRIGHT/PLANK	3	1000	4.0	0.0
			1702	0.0	0.0
			1621	0.0	0.0
			1740	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSR JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
21100	MILLRIGHT/GENERAL	4	1621	0.0	0.0
			1000	1.2	0.0
20700	RAILCAR LOADER	9	1747	0.0	0.0
20200	FORKLIFT OPERATOR	11	1800	0.0	0.0
20100	LUMBER CARRIER OPER	8	1810	0.0	0.0
19700	MOULDER OFFBEAKER	2	1731	0.0	0.0
19600	MOULDER FEEDER	2	1727	0.4	0.0
			1720	1.0	0.0
19100	SPECIALTY RESAW OFFS	2	1700	0.0	0.0
19000	SPECIALTY RESAW OPER	2	1700	0.0	0.0
18100	CHECKERS	6	1740	0.0	0.0
17900	BANDER OPERATOR	3	1701	4.0	0.0
			1702	4.0	0.0
17600	DRY CHAIN PULLER	20	1741	0.0	0.0
17300	GRADER/PLANER MILL	16	1710	2.0	0.0
			1700	2.4	0.0
16800	PLANER SET-UP MAN	2	1702	1.0	0.0
			1711	3.0	0.0
			1710	3.0	0.0
16700	PLANER OPERATOR	8	1711	0.0	0.0
			1700	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

804 JOB NO. 1983

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 1		NO. DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
16200	UNSTACKER PULLER	2	1693	0.0	0.0
16100	UNSTACKER-DAY	2	1692	0.0	0.0
16000	KILN OPERATOR	3	1000	0.0	0.0
15600	UNIPAC OPERATOR	2	1694	0.0	0.0
15500	STACKERMAN-GREEN	2	1691	0.0	0.0
15400	STACKER-GREEN	4	1690	0.0	0.0
15100	GREEN CHAIN PULLER	2	1602	0.0	0.0
14601	TRIMMER OPERATOR	4	1674 1670	4.0 4.0	0.0 0.0
14800	TRIMMER OPERATOR	4	1670 1672	4.0 4.0	0.0 0.0
14500	GREEN CHAIN OPERATOR	4	1602	0.0	0.0
14000	RESAW OPERATOR	2	1646 1647	2.0 2.2	0.0 0.0
13700	CHIPPER OPERATOR	2	1704 1783 1621	4.0 0.0 2.4	0.0 0.0 0.0
13400	EDGER OPERATOR	4	1635 1636	4.0 4.0	0.0 0.0
12700	TAIL Sawyer	4	1626 1627	1.0 0.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BSR JOB NO. 7837

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	MR. STD. DEVIATION
12300	SAWYER	4	1622	1.6	0.0
			1623	6.4	0.0
11700	DECK SCALER	2	1613	0.4	0.0
			1621	7.6	0.0
11400	DEBARKER OPERATOR	2	1606	3.2	0.0
			1607	4.8	0.0
11100	LOG CARRIER OPER	1	1806	4.0	0.0
			1000	4.0	0.0
10800	LOG SUKTER	2	1000	8.0	0.0
10700	POND SUKTER	4	1000	6.0	0.0
10400	PLANER SUPERVISOR	4	1000	4.0	0.0
			1700	4.0	0.0
10100	SAWMILL SUPERVISOR	3	1796	4.0	0.0
			1776	1.0	0.0
			1621	1.2	0.0
			1630	1.2	0.0

PLANT NO. 2

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9655

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 2

DATE: 1960

EQUIP. CODE	GENERAL NAME	LEG CLR
1853	RIPSAH-SPECIALTY	92.0
1852	RIPSAH-SPECIALTY	82.0
1851	RIPSAH-SPECIALTY	74.0
1850	RIPSAH-SPECIALTY	64.0
1831	GANG SAW	77.0
1830	GANG SAW	77.0
1824	QUAUSAH	97.0
1823	QUAUSAH	75.0
1822	QUAUSAH	90.0
1819	TRANSFER CARRIER	80.0
1810	LUMBER CARRIER	84.0
1810	LUMBER CARRIER	32.0
1802	FORKLIFT	90.0
1790	PONCKHOUSE	90.0
1784	CHIPPER	104.0
1784	CHIPPER	108.0
1784	CHIPPER	105.0
1784	CHIPPER	105.0
1784	CHIPPER	102.0
1784	CHIPPER	105.0
1784	CHIPPER	108.0
1784	CHIPPER	104.0
1784	CHIPPER	105.0
1784	CHIPPER	102.0
1783	CHIPPER	72.0
1783	CHIPPER	66.0
1783	CHIPPER	74.0
1752	STALK BANDER	85.0
1751	STALK BANDER	78.0
1747	RAILCAR LOADER	85.0
1741	DRY CHAIN CONVEYR	83.0
1741	DRY CHAIN CONVEYR	85.0
1741	DRY CHAIN CONVEYR	87.0
1735	MOULDER	102.0
1734	MOULDER	95.0
1731	MOULDER/ENCL	70.0
1731	MOULDER/ENCL	77.0
1727	MOULDER/ENCL	81.0
1726	MOULDER/ENCL	75.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 4631

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 2

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEU UBA
1710	PLANER/ENCL	42.0
1710	PLANER/ENCL	42.0
1711	PLANER/ENCL	40.0
1711	PLANER/ENCL	40.0
1702	PLANER	104.0
1702	PLANER	100.0
1694	KILN CHAIN CONVYR	33.0
1692	KILN CHAIN CONVYR	35.0
1692	KILN CHAIN CONVYR	34.0
1691	KILN CHAIN CONVYR	30.0
1690	KILN CHAIN CONVYR	35.0
1690	KILN CHAIN CONVYR	30.0
1690	KILN CHAIN CONVYR	32.0
1687	KILN	33.0
1682	GREEN CHAIN CONVY	33.0
1682	GREEN CHAIN CONVY	33.0
1681	GREEN CHAIN CONVY	30.0
1672	TRIMMER	43.0
1672	TRIMMER	43.0
1670	TRIMMER	43.0
1655	KESAH-LARGE	74.0
1654	KESAH-LARGE	74.0
1639	EDGER	42.0
1639	EDGER	43.0
1638	EDGER	42.0
1638	EDGER	43.0
1636	EDGER	44.0
1637	EDGER	44.0
1637	EDGER	43.0
1637	EDGER	42.0
1623	HEADRIG	43.0
1622	HEADRIG	34.0
1617	CUT-OFF SAW	70.0
1616	CUT-OFF SAW	44.0
1605	DEBARKER	70.0
1603	DEBARKER	70.0
1602	DEBARKER	74.0
1602	DEBARKER	74.0
1515	WHEEL CRINDER	74.0

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 2

DATE: 1980

BACK. CODE	GENERAL NAME	LEG UBA	EQUIPMENT CODE	CONTRIBUTION CONTR.	TO CODE CONTR.	BACKGROUND CODE	CONTR.
1883	BACK/MECHANIC SHP	65.0	1000	1.00	0 0.0	0	0.0
1881	BACK/FILEROOM	84.0	1623	0.50	1822 0.40	1631	0.10
1881	BACK/FILEROOM	74.0	1623	0.50	1822 0.40	1631	0.10
1881	BACK/FILEROOM	76.0	1623	0.50	1822 0.40	1631	0.10
1879	BACK/PIPE SHUP	85.0	1513	0.60	1802 0.20	1784	0.20
1879	BACK/PIPE SHUP	65.0	1000	1.00	0 0.0	0	0.0
1875	BACK/CAKPNTR SHUP	65.0	1000	1.00	0 0.0	0	0.0
1873	BACK/MACHINE SHUP	74.0	1513	1.00	0 0.0	0	0.0
1873	BACK/MACHINE SHUP	65.0	1000	1.00	0 0.0	0	0.0
1849	BACK/SPEC KIPSAH	84.0	1735	0.70	1651 0.30	0	0.0
1829	BACK/GANG SAW	91.0	1831	0.60	1822 0.20	1623	0.20
1820	BACK/QUAD SAW	94.0	1822	0.60	1631 0.20	1623	0.20
1814	BACK/TRANSFER RM	84.0	1690	0.70	1682 0.30	0	0.0
1793	BACK/PURKHOUSE	82.0	1790	1.00	0 0.0	0	0.0
1793	BACK/PURKHOUSE	84.0	1795	1.00	0 0.0	0	0.0
1740	BACK/DRY CHAIN	83.0	1692	0.70	1741 0.30	0	0.0
1700	BACK/PLANER	93.0	1702	0.60	1711 0.10	1716	0.10
1686	BACK/KILN/LNTL RM	86.0	1687	0.70	1682 0.10	1615	0.20
1680	BACK/GREEN CHAIN	83.0	1784	0.60	1672 0.20	1690	0.20
1665	BACK/TRIMMER	90.0	1670	0.90	1681 0.10	0	0.0
1645	BACK/RESAM	96.0	1654	0.60	1822 0.30	1831	0.10
1630	BACK/EDGER	91.0	1636	0.70	1822 0.30	0	0.0
1601	BACK/DEBARCKER	81.0	1603	0.50	1617 0.50	0	0.0
1601	BACK/DEBARCKER	89.0	1603	0.30	1617 0.70	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STU. DEV.
1702	PLANER	2	108.5	0.71
1784	CHIPPER	10	104.8	2.04
1735	MOULDER	1	102.0	0.0
1824	QUADSAW	1	97.0	0.0
1645	BACK/RESAW	1	96.0	0.0
1670	TRIMMER	1	95.0	0.0
1734	MOULDER	1	95.0	0.0
1823	QUADSAW	1	95.0	0.0
1616	CUT-OFF SAW	1	94.0	0.0
1820	BACK/QUAD SAW	1	94.0	0.0
1851	RIPSAW-SPECIALTY	1	94.0	0.0
1623	HEADRIG	1	93.0	0.0
1637	EDGER	3	93.0	1.00
1638	EDGER	3	93.0	1.00
1672	TRIMMER	2	93.0	0.0
1700	BACK/PLANER	1	93.0	0.0
1639	EDGER	2	92.5	0.71
1716	PLANER/ENCL	2	92.0	0.0
1853	RIPSAW-SPECIALTY	1	92.0	0.0
1630	BACK/EDGER	1	91.0	0.0
1829	BACK/GANG SAW	1	91.0	0.0
1783	CHIPPER	3	90.7	4.16
1665	BACK/TRIMMER	1	90.0	0.0
1711	PLANER/ENCL	2	90.0	0.0
1796	POWERHOUSE	1	90.0	0.0
1802	FORKLIFT	1	90.0	0.0
1822	QUADSAW	1	90.0	0.0
1622	HEADRIG	1	89.0	0.0
1686	BACK/KILN&CNTL RM	1	88.0	0.0
1690	KILN CHAIN CONVYR	3	87.0	8.54
1692	KILN CHAIN CONVYR	2	87.0	2.83
1691	KILN CHAIN CONVYR	1	86.0	0.0
1601	BACK/DEBARKER	2	85.0	5.86
1687	KILN	1	85.0	0.0
1741	DRY CHAIN CONVEYR	3	85.0	2.00
1752	STACK BANDER	1	85.0	0.0
1682	GREEN CHAIN CONVY	2	84.0	1.41
1814	BACK/TRANSFER RM	1	84.0	0.0
1849	BACK/SPEC RIPSAW	1	84.0	0.0
1850	RIPSAW-SPECIALTY	1	84.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (Leq)

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN _EQ(LeqA)	STD. DEV.
1680	BACK/GREEN CHAIN	1	83.0	0.0
1694	KILN CHAIN CONVYR	1	83.0	0.0
1740	BACK/DRY CHAIN	1	83.0	0.0
1793	BACK/POWERHOUSE	2	83.0	1.41
1852	KIPSAH-SPECIALTY	1	82.0	0.0
1727	MUULDER/ENCL	1	81.0	0.0
1815	TRANSFER CARRIER	1	80.0	0.0
1513	WHEEL GRINDER	1	79.0	0.0
1881	BACK/FILEROOM	3	78.7	5.03
1751	STACK BANDER	1	78.0	0.0
1731	MUULDER/ENCL	2	77.5	0.71
1603	DEBARKER	2	77.0	1.41
1830	GANG SAH	1	77.0	0.0
1831	GANG SAH	1	77.0	0.0
1681	GREEN CHAIN CONVY	1	76.0	0.0
1617	CUT-OFF SAH	1	75.0	0.0
1726	MUULDER/ENCL	1	75.0	0.0
1879	BACK/PIPE SHOP	2	75.0	14.14
1602	DEBARKER	2	74.0	0.0
1654	KESAH-LARGE	1	74.0	0.0
1655	KESAH-LARGE	1	74.0	0.0
1873	BACK/MACHINE SHOP	2	72.0	9.90
1875	BACK/CARPNTN SHUP	1	65.0	0.0
1883	BACK/MECHANIC SHP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 2

NO. DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1779	CHIPPER	13	101.5	2.50
1699	PLANER	6	96.8	0.41
1819	QUADSAW	3	94.0	0.0
1664	TRIMMER	3	93.7	0.0
1629	EDGER	8	92.4	0.95
1620	HEADRIG	2	91.0	0.0
1800	FORKLIFT	1	90.0	0.0
1792	PUMPHOUSE	1	90.0	0.0
1848	RIP SAW/SPECIALTY	4	88.0	0.0
1688	KILN CHAIN	7	86.3	7.16
1739	DRY CHAIN	3	85.0	2.00
1685	KILN	1	85.0	0.0
1610	CUT-OFF	2	84.4	0.0
1724	MOULDER	6	84.7	0.74
1810	LUMBER CARRIER	2	83.0	1.41
1749	STACK BANDER	2	81.5	0.0
1679	GREEN CHAIN	3	81.5	1.41
1813	TRANSFER CARRIER	1	80.0	0.0
1828	GANG SAW	2	77.0	0.0
1600	DEBARKER	4	75.5	1.00
1644	RESAW/LARGE	2	74.0	0.0
1747	RAIL CAR LOAD	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CBN JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 2

DATE: 1969

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
265	LABORER	1	1000	50.0	1630	10.0	1740	10.0
			1020	15.0	1700	15.0	0	0.0
261	CLEAN-UP MAN/REGULAR	1	1700	100.0	0	0.0	0	0.0
248	POWERHOUSE OPERATOR	3	1793	100.0	0	0.0	0	0.0
245	OILER	2	1601	20.0	1620	20.0	1645	20.0
			1629	20.0	1630	20.0	0	0.0
244	FILERS	7	1661	100.0	0	0.0	0	0.0
236	PIPE-FITTERS	1	1679	15.0	1000	5.0	1620	30.0
			1740	30.0	1793	20.0	0	0.0
233	CARPENTERS	1	1620	20.0	1645	20.0	1630	20.0
			1700	20.0	1740	20.0	0	0.0
226	ELECTRICIANS	3	1620	20.0	1645	20.0	1630	20.0
			1700	20.0	1740	20.0	0	0.0
223	MECHANICS	1	1663	100.0	0	0.0	0	0.0
219	MACHINISTS	3	1673	20.0	1620	20.0	1630	20.0
			1700	20.0	1740	20.0	0	0.0
211	MILLWRIGHT/GENERAL	3	1601	20.0	1620	20.0	1645	20.0
			1629	20.0	1630	20.0	0	0.0
207	RAILCAR LOADER	2	1747	100.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	3	1752	20.0	1502	80.0	0	0.0
201	LUMBER CARRIER OPER	3	1510	100.0	0	0.0	0	0.0
197	MOULDER OFFBEAKER	1	1731	100.0	0	0.0	0	0.0
196	MOULDER FEEDER	1	1727	80.0	1734	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SEN JOB NO. 903

INPUT PERSONNEL HOUR ASSIGNMENTS

SIC CODE: 292

PLANT NO: 2

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT CODE TIME	USING CODE TIME	EQUIPMENT CODE TIME	CODE	TIME
186	RIPSAW OFFBEAKER	1	1853 100.0	0	0.0	0	0.0
185	RIPSAW OPERATOR	1	1851 100.0	0	0.0	0	0.0
179	DAMBER OPERATOR	2	1752 100.0	0	0.0	0	0.0
176	DRY CHAIN PULLER	14	1741 88.0	1694	12.0	0	0.0
173	GRADER/PLANE MILL	8	1716 100.0	0	0.0	0	0.0
167	PLANE OPERATOR	4	1711 98.0	1702	2.0	0	0.0
161	UNSTACKER-DRY	2	1692 85.0	1700	15.0	0	0.0
160	KILN OPERATOR	1	1688 5.0	1614	45.0	0	0.0
159	TRANSFER OPERATOR	2	1614 50.0	1615	50.0	0	0.0
155	STICKERMAN-GREEN	2	1740 35.0	1691	65.0	0	0.0
154	STACKER-GREEN	2	1740 35.0	1690	65.0	0	0.0
154	STACKER-GREEN	2	1690 100.0	0	0.0	0	0.0
151	GREEN CHAIN PULLER	2	1681 100.0	0	0.0	0	0.0
148	TRIMMER OPERATOR	2	1670 100.0	0	0.0	0	0.0
145	GREEN CHAIN OPERATOR	2	1682 100.0	0	0.0	0	0.0
143	UNSCRAMBLE OPERATOR	2	1672 100.0	0	0.0	0	0.0
140	RESAW OPERATOR	2	1654 90.0	1655	10.0	0	0.0
137	CHIPPER OPERATOR	2	1639 50.0	1784	25.0	1763	25.0
134	EDGER OPERATOR	5	1638 70.0	1637	30.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9039

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 2

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT		USING EQUIPMENT CODE			
			CODE	TIME	CODE	TIME	CODE	TIME
133	SLAB BOARD PULLER	2	1039	100.0	0	0.0	0	0.0
131	GANG SAW OPERATOR	2	1031	90.0	1830	10.0	0	0.0
125	QUADSAW TAIL SAWYER	2	1024	100.0	0	0.0	0	0.0
123	SAWYER	4	1023	45.0	1022	5.0	1022	50.0
114	DEBARKER OPERATOR	2	1003	60.0	1002	35.0	1017	5.0
114	DEBARKER OPERATOR	2	1003	100.0	0	0.0	0	0.0
107	POND SURTER	2	1000	100.0	0	0.0	0	0.0
101	SAWMILL SUPERVISOR	2	1001	20.0	1020	20.0	1045	20.0
			1029	20.0	1030	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DOW JOB NO. 7639

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 2		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-8HRS	NO. STD. DEVIATION
26500	LABORER	1	1000	4.0	0.0
			1630	0.8	0.0
			1740	0.8	0.0
			1820	1.2	0.0
			1700	1.2	0.0
26100	CLEAN-UP MAN/REGULAR	1	1700	3.0	0.0
24800	PUMPHOUSE OPERATOR	3	1743	3.0	0.0
24500	OILER	2	1601	1.6	0.0
			1820	1.6	0.0
			1645	1.6	0.0
			1824	1.6	0.0
			1630	1.6	0.0
24400	FILERS	7	1881	3.0	0.0
23600	PIPE-FITTERS	1	1874	1.2	0.0
			1000	0.4	0.0
			1820	2.4	0.0
			1740	2.4	0.0
			1743	1.6	0.0
23300	CARPENTERS	1	1820	1.6	0.0
			1645	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
			1740	1.6	0.0
22800	ELECTRICIANS	3	1820	1.6	0.0
			1645	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
			1740	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOHN JOE NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 2		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-HRS	NUR. STD. DEVIATION
22300	MECHANICS	1	1883	0.0	0.0
21900	MACHINISTS	5	1873	1.6	0.0
			1820	1.0	0.0
			1630	1.0	0.0
			1700	1.0	0.0
			1740	1.0	0.0
21100	MILLWRIGHT/GENERAL	5	1601	1.6	0.0
			1620	1.0	0.0
			1640	1.6	0.0
			1624	1.0	0.0
			1630	1.6	0.0
20700	RAILCAR LOADER	2	1747	0.0	0.0
20200	FORKLIFT OPERATOR	2	1702	1.0	0.0
			1602	0.4	0.0
20100	LUMBER CARRIER OPER	3	1610	0.0	0.0
19700	MOULDER OFFBEARER	1	1731	0.0	0.0
19600	MOULDER FEEDER	1	1727	0.4	0.0
			1734	1.0	0.0
18600	RIPSAW OFFBEARER	1	1853	0.0	0.0
18500	RIPSAW OPERATOR	1	1851	0.0	0.0
17900	BANDER OPERATOR	2	1702	0.0	0.0
17600	DRY CHAIN PULLER	14	1741	7.0	0.0
			1694	1.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSM JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
17300	GRADER/PLANER MILL	8	1710	6.0	0.0
16700	PLANER OPERATOR	4	1711 1702	7.0 0.2	0.0 0.0
16100	UNSTACKER-DRY	2	1692 1700	0.0 1.2	0.0 0.0
16000	KILN OPERATOR	1	1680 1614	0.4 7.0	0.0 0.0
15900	TRANSFER OPERATOR	2	1814 1815	4.0 4.0	0.0 0.0
15500	STICKERMAN-GREEN	2	1740 1691	2.0 3.2	0.0 0.0
15401	STACKER-GREEN	2	1690	0.0	0.0
15400	STACKER-GREEN	2	1740 1690	2.0 3.2	0.0 0.0
15100	GREEN CHAIN PULLER	2	1681	0.0	0.0
14800	TRIMMER OPERATOR	2	1670	0.0	0.0
14500	GREEN CHAIN OPERATOR	2	1682	0.0	0.0
14300	UNSCRAMBLE OPERATOR	2	1672	0.0	0.0
14000	RESAM OPERATOR	2	1654 1655	7.2 0.0	0.0 0.0
13700	CHIPPER OPERATOR	2	1654 1704 1705	4.0 2.0 2.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
13400	EDGE OPERATOR	6	1636	5.0	0.0
			1637	2.4	0.0
13300	SLAB BOARD PULLER	2	1639	6.0	0.0
13100	GANG SAM OPERATOR	2	1631	7.2	0.0
			1630	0.8	0.0
12800	QUADSAM TAIL SAWYER	2	1624	6.0	0.0
12300	SAWYER	4	1623	3.0	0.0
			1622	0.4	0.0
			1622	4.0	0.0
11401	DEBARKER OPERATOR	2	1603	6.0	0.0
11400	DEBARKER OPERATOR	2	1603	4.0	0.0
			1602	2.0	0.0
			1617	0.4	0.0
10700	POND SURTER	2	1000	6.0	0.0
10100	SAWMILL SUPERVISOR	2	1601	1.6	0.0
			1620	1.6	0.0
			1645	1.6	0.0
			1629	1.6	0.0
			1630	1.6	0.0

PLANT NO. 3

ENVIRONMENTAL PROTECTION AGENCY

OSN JOB NO. 4635

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 3

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEU UBA
1602	FORKLIFT	90.0
1790	POWERHOUSE	87.0
1794	POWERHOUSE	91.0
1741	DRY CHAIN CONVEYR	86.0
1741	DRY CHAIN CONVEYR	88.0
1741	DRY CHAIN CONVEYR	93.0
1710	PLANEK/ENCL	70.0
1710	PLANEK/ENCL	70.0
1711	PLANEK/ENCL	102.0
1710	PLANEK/ENCL	93.0
1702	PLANEK	113.0
1694	KILN CHAIN CONVYR	85.0
1691	KILN CHAIN CONVYK	90.0
1691	KILN CHAIN CONVYK	81.0
1690	KILN CHAIN CONVYK	94.0
1690	KILN CHAIN CONVYK	81.0
1690	KILN CHAIN CONVYK	83.0
1683	GREEN CHAIN CONVY	95.0
1682	GREEN CHAIN CONVY	86.0
1672	TRIMMER	94.0
1670	TRIMMER	90.0
1664	TRIMMER	94.0
1647	RESAW-LARGE	90.0
1640	RESAW-LARGE	94.0
1638	EDGER	93.0
1637	EDGER	89.0
1623	HEADKIG	80.0
1622	HEADKIG	75.0
1617	CUT-OFF SAW	82.0
1616	CUT-OFF SAW	80.0
1603	DEBARCKER	88.0
1602	DEBARCKER	82.0

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 3

DATE: 1969

BACK. CODE	GENERAL NAME	LEW DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE	CONTR.	CODE	CONTR.	CODE	CONTR.
1681	BACK/FILEROOM	84.0	1623	0.70	1638	0.30	0	0.0
1673	BACK/MACHINE SHOP	65.0	1000	2.00	0	0.0	0	0.0
1671	BACK/BASEMENT	90.0	1623	0.60	1638	0.40	0	0.0
1671	BACK/BASEMENT	89.0	1672	0.60	1662	0.40	0	0.0
1793	BACK/PURERHOUSE	88.0	1794	0.30	1792	0.30	0	0.0
1740	BACK/DRY CHAIN	79.0	1670	0.70	1741	0.30	0	0.0
1700	BACK/PLANEK	94.0	1702	0.30	1716	0.20	0	0.0
1700	BACK/PLANEK	92.0	1702	0.80	1711	0.20	0	0.0
1686	BACK/KILN&CNTL RM	82.0	1602	0.30	1741	0.70	0	0.0
1680	BACK/GREEN CHAIN	82.0	1693	0.50	1662	0.40	0	0.0
1680	BACK/GREEN CHAIN	93.0	1683	0.60	1662	0.40	0	0.0
1665	BACK/TRIMMER	93.0	1672	0.60	1662	0.20	0	0.0
1645	BACK/RESAH	96.0	1647	0.90	1663	0.10	0	0.0
1630	BACK/EDGER	97.0	1638	0.30	1623	0.20	0	0.0
1621	BACK/HEADKIC	93.0	1623	0.30	1638	0.20	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

804 JUB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE * 242

PLANT NO. = J

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN .EQ(DBA)	STD. DEV.
1702	PLANER	1	115.0	0.0
1711	PLANER/ENCL	1	102.0	0.0
1630	BACK/EDGER	1	97.0	0.0
1645	BACK/RESAW	1	96.0	0.0
1647	RESAW-LARGE	1	96.0	0.0
1670	TRIMMER	1	96.0	0.0
1716	PLANER/ENCL	2	96.0	0.0
1683	GREEN CHAIN CONVY	1	95.0	0.0
1646	RESAW-LARGE	1	94.0	0.0
1669	TRIMMER	1	94.0	0.0
1672	TRIMMER	1	94.0	0.0
1621	BACK/HEADRIG	1	93.0	0.0
1638	EDGER	1	93.0	0.0
1665	BACK/TRIMMER	1	93.0	0.0
1700	BACK/PLANER	2	93.0	1.41
1710	PLANER/ENCL	1	93.0	0.0
1871	BACK/BASEMENT	2	92.5	4.95
1794	PUMERHOUSE	1	91.0	0.0
1802	FURKLIFT	1	90.0	0.0
1637	EDGER	1	89.0	0.0
1741	DRY CHAIN CONVEYR	3	89.0	3.61
1793	BACK/PUMERHOUSE	1	88.0	0.0
1680	BACK/GREEN CHAIN	2	87.5	7.76
1796	PUMERHOUSE	1	87.0	0.0
1603	DEBARKER	1	86.0	0.0
1616	CUT-OFF SAW	1	86.0	0.0
1690	KILN CHAIN CONVYR	3	86.0	7.00
1691	KILN CHAIN CONVYR	2	85.5	6.36
1881	BACK/FILEROOM	1	84.0	0.0
1694	KILN CHAIN CONVYR	1	83.0	0.0
1693	BACK. ONLY CONTR.	1	82.3	7.76
1602	DEBARKER	1	82.0	0.0
1617	CUT-OFF SAW	1	82.0	0.0
1686	BACK/KILN&CNTL RM	1	82.0	0.0
1623	HEADRIG	1	80.0	0.0
1682	GREEN CHAIN CONVY	1	80.0	0.0
1740	BACK/DRY CHAIN	1	79.0	0.0
1622	HEADRIG	1	75.0	0.0
1673	BACK/MACHINE SHOP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1699	PLANER	5	100.4	0.0
1644	RESAW/LARGE	2	95.0	0.0
1664	TRIMMER	3	94.7	0.0
1629	EDGEK	2	91.0	0.0
1800	FURKLIFT	1	90.0	0.0
1792	PURKHOUSE	2	89.0	0.0
1739	DRY CHAIN	3	89.0	3.61
1679	GREEN CHAIN	2	87.5	0.0
1688	KILN CHAIN	7	84.9	6.79
1610	CUT-OFF	2	84.0	0.0
1600	DEBARKER	2	84.0	0.0
1620	HEADRIG	2	77.5	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9555

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 3

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
265	LADDREK	1	1000	40.0	1680	15.0	1700	30.0
			1740	15.0	0	0.0	0	0.0
262	CLEAN-UP MAN/DOWN TM	1	1000	100.0	0	0.0	0	0.0
261	CLEAN-UP MAN/REGULAR	1	1000	40.0	1671	45.0	1621	5.0
			1630	5.0	1645	5.0	0	0.0
248	POWERHOUSE OPERATOR	3	1686	5.0	1795	95.0	0	0.0
244	FILERS	4	1661	100.0	0	0.0	0	0.0
213	MILLWRIGHT/PLANER	3	1686	25.0	1700	50.0	1740	25.0
212	MILLWRIGHT/SANMILL	3	1671	20.0	1621	20.0	1630	20.0
			1645	20.0	1680	20.0	0	0.0
207	RAILCAR LOADER	2	1000	100.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	8	1600	100.0	0	0.0	0	0.0
182	TALLYMEN	3	1000	100.0	0	0.0	0	0.0
176	DRY CHAIN PULLER	12	1741	86.0	1694	12.0	0	0.0
173	GRADER/PLANER MILL	6	1716	100.0	0	0.0	0	0.0
167	PLANER OPERATOR	3	1711	40.0	1702	10.0	0	0.0
155	STICKERMAN-GREEN	3	1691	90.0	1680	10.0	0	0.0
154	STACKER-GREEN	3	1680	90.0	1680	10.0	0	0.0
151	GREEN CHAIN PULLER	12	1683	100.0	0	0.0	0	0.0
146	TRIMMER OPERATOR	3	1670	45.0	1000	5.0	0	0.0
148	TRIMMER OPERATOR	3	1672	40.0	1630	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

FORM JLD NO. 9835

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 3

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
144	LUMBER DIVERTER	3	1003	95.0	1000	5.0	0	0.0
140	RESAW OPERATOR	3	1047	85.0	1040	35.0	0	0.0
134	EDGER OPERATOR	3	1030	95.0	1037	5.0	0	0.0
123	SAWYER	3	1023	70.0	1022	30.0	0	0.0
114	DEBARKER OPERATOR	3	1003	70.0	1002	25.0	1017	5.0
104	PLANER SUPERVISOR	3	1021	20.0	1030	20.0	1045	20.0
			1000	20.0	1005	20.0	0	0.0
101	SAWMILL SUPERVISOR	3	1021	20.0	1030	20.0	1045	0.0
			1000	20.0	1005	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSM JOB NO. 9655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 3		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
26500	LABORER	1	1000	3.2	0.0
			1680	1.2	0.0
			1700	2.4	0.0
			1740	1.2	0.0
26200	CLEAN-UP MAN/DOWN TR	1	1000	6.0	0.0
26100	CLEAN-UP MAN/REGULAR	1	1000	3.2	0.0
			1871	3.6	0.0
			1621	0.4	0.0
			1630	0.4	0.0
			1645	0.4	0.0
24800	PUMPHOUSE OPERATOR	3	1680	0.4	0.0
			1745	7.6	0.0
24400	FILENS	4	1601	3.0	0.0
21300	MILLRIGHT/PLANEK	3	1680	2.0	0.0
			1700	4.0	0.0
			1740	2.0	0.0
21200	MILLRIGHT/SAWMILL	3	1871	1.6	0.0
			1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1680	1.6	0.0
20700	RAILCAR LOADER	2	1000	6.0	0.0
20200	FORKLIFT OPERATOR	8	1800	6.0	0.0
18200	TALLYMEN	3	1000	6.0	0.0
17600	DRY CHAIN PULLER	12	1741	7.0	0.0
			1694	1.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

808 JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 3		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-8HRS	NR. STU. DEVIATION
17300	GRADER/PLANE MILL	6	1716	8.0	0.0
16700	PLANE OPERATOR	3	1711 1702	7.2 0.8	0.0 0.0
15500	STICKERMAN-GREEN	3	1691 1680	7.2 0.8	0.0 0.0
15400	STACKER-GREEN	3	1680 1680	7.2 0.8	0.0 0.0
15100	GREEN CHAIN PULLER	12	1683	8.0	0.0
14801	TRIMMER OPERATOR	3	1672 1680	7.2 0.8	0.0 0.0
14800	TRIMMER OPERATOR	3	1670 1000	7.6 0.4	0.0 0.0
14400	LUMBER DIVERTER	3	1683 1680	7.6 0.4	0.0 0.0
14000	RESAW OPERATOR	3	1647 1646	5.2 2.8	0.0 0.0
13400	EDGER OPERATOR	3	1638 1637	7.6 0.4	0.0 0.0
12300	SAWYER	3	1623 1622	5.6 2.4	0.0 0.0
11400	DEBARKER OPERATOR	3	1603 1602 1617	5.6 2.0 0.4	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9639

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STU. DEVIATION
10400	PLANER SUPERVISOR	3	1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1680	1.6	0.0
			1665	1.6	0.0
10100	SAHMILL SUPERVISOR	3	1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1680	1.6	0.0
			1665	1.6	0.0

PLANT NO. 4

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 4039

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 4

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEW UEA
1683	GREEN CHAIN CONY	95.0
1682	GREEN CHAIN CONY	92.0
1672	TRIMMER	95.0
1669	TRIMMER	93.0
1647	RESAW-LARGE	93.0
1636	EDGER	72.0
1637	EDGER	69.0
1623	HEADRIG	61.0
1622	HEADRIG	76.0
1617	CUT-OFF SAW	71.0
1616	CUT-OFF SAW	65.0
1603	DEBARKER	69.0
1602	DEBARKER	65.0

ENVIRONMENTAL PROTECTION AGENCY

OSHA JOB NO. 9035

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 4

DATE: 1980

BACK. CODE	GENERAL NAME	LEV DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE	CONTR.	CODE	CONTR.	CODE	CONTR.
1881	BACK/FILEROOM	81.0	1623	0.30	163b	0.20	0	0.0
1871	BACK/BASEMENT	94.0	1623	0.60	163b	0.40	0	0.0
1871	BACK/BASEMENT	86.0	1672	0.50	1633	0.50	0	0.0
1780	BACK/CHIPPER	100.0	1782	1.00	0	0.0	0	0.0
1680	BACK/GREEN CHAIN	74.0	1682	0.50	1663	0.30	1672	0.20
1680	BACK/GREEN CHAIN	90.0	1682	0.60	1672	0.40	0	0.0
1665	BACK/TRIMMER	93.0	1672	0.70	1662	0.30	0	0.0
1630	BACK/EDGER	93.0	163b	0.60	1633	0.20	0	0.0
1621	BACK/HEADKIG	96.0	1623	0.60	163b	0.20	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1782	BACK. ONLY CONTR.	2	100.0	0.0
1780	BACK/CHIPPER	1	100.0	0.0
1621	BACK/HEADRIG	1	98.0	0.0
1672	TRIMMER	1	95.0	0.0
1683	GREEN CHAIN CONVY	1	95.0	0.0
1630	BACK/EDGER	1	93.0	0.0
1647	RESAW-LARGE	1	93.0	0.0
1665	BACK/TRIMMER	1	93.0	0.0
1669	TRIMMER	1	93.0	0.0
1682	GREEN CHAIN CONVY	1	92.0	0.0
1871	BACK/BASEMENT	2	90.0	5.60
1680	BACK/GREEN CHAIN	2	82.0	11.31
1623	HEADRIG	1	81.0	0.0
1881	BACK/FILEROOM	1	81.0	0.0
1622	HEADRIG	1	76.0	0.0
1638	EDGER	1	72.0	0.0
1617	CUT-OFF SAW	1	71.0	0.0
1603	DEBARKER	1	69.0	0.0
1637	EDGER	1	69.0	0.0
1602	DEBARKER	1	65.0	0.0
1616	CUT-OFF SAW	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1779	CHIPPER	2	100.0	0.0
1664	TRIMMER	2	94.0	0.0
1679	GREEN CHAIN	2	93.5	0.0
1644	RESAW/LARGE	1	93.0	0.0
1620	HEADRIG	2	78.5	0.0
1629	EDGER	2	70.5	0.0
1610	CUT-OFF	2	68.0	0.0
1600	DEBARCKER	2	67.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBM JOB NO. 9055

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 4

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT CODE TIME	USING EQUIPMENT CODE TIME	CODE TIME	CODE TIME
262	CLEAN-UP MAN/DOHN TM	1	1000 100.0	0 0.0	0	0.0
261	CLEAN-UP MAN/REGULAR	2	1000 50.0 1030 15.0	1071 20.0 0 0.0	1021 15.0 0	0.0
244	FILERS	5	1000 5.0	1001 95.0	0	0.0
216	SMOPMAN/GENERAL	1	1000 60.0 1030 10.0	1021 10.0 1005 10.0	1020 10.0 0	0.0
212	MILLRIGHT/SAMMILL	4	1047 3.0 1005 25.0	1001 27.0 1000 20.0	1030 25.0 0	0.0
202	FORKLIFT OPERATOR	3	1000 50.0	1002 40.0	1000	10.0
151	GREEN CHAIN PULLER	9	1002 80.0	1000 20.0	0	0.0
148	TRIMMER OPERATOR	3	1072 80.0	1005 20.0	0	0.0
144	LUMBER DIVERTER	3	1003 80.0	1000 5.0	1071 15.0	
134	EDGER OPERATOR	3	1030 80.0	1037 20.0	0	0.0
123	SAWYER	3	1023 70.0	1022 30.0	0	0.0
114	DEBARKER OPERATOR	3	1003 70.0	1002 25.0	1017 5.0	
101	SAMMILL SUPERVISOR	3	1000 5.0 1005 25.0	1021 25.0 1000 20.0	1030 25.0 0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BOM JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NDR. MEAN TIME-HRS	NDR. STU. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	1	1000	8.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1000	4.0	0.0
			1871	1.6	0.0
			1621	1.2	0.0
			1630	1.2	0.0
24400	FILERS	5	1000	0.4	0.0
			1881	7.6	0.0
21600	SHOPMAN/GENERAL	1	1000	4.8	0.0
			1621	0.8	0.0
			1680	0.8	0.0
			1630	0.8	0.0
			1665	0.8	0.0
21200	MILLWRIGHT/SANMILL	4	1647	0.2	0.0
			1881	2.2	0.0
			1630	2.0	0.0
			1665	2.0	0.0
			1680	1.6	0.0
20200	FURKLIFT OPERATOR	3	1800	4.0	0.0
			1682	3.2	0.0
			1680	0.8	0.0
15100	GREEN CHAIN PULLER	9	1682	6.4	0.0
			1680	1.6	0.0
14800	TRIMMER OPERATOR	3	1672	6.4	0.0
			1665	1.6	0.0
14400	LUMBER DIVERTER	3	1683	6.4	0.0
			1680	0.4	0.0
			1871	1.2	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 4		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
13400	EDGER OPERATOR	3	1638	6.4	0.0
			1637	1.6	0.0
12300	SAHYER	3	1623	5.6	0.0
			1622	2.4	0.0
11400	DEBARKER OPERATOR	3	1603	5.6	0.0
			1602	2.0	0.0
			1617	0.4	0.0
10100	SAHMILL SUPERVISOR	3	1000	0.4	0.0
			1621	2.0	0.0
			1630	2.0	0.0
			1665	2.0	0.0
			1680	1.0	0.0

PLANT NO. 5

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 4855

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 5

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEG CBA
1810	LUMBER CARRIER	03.0
1802	FORKLIFT	04.0
1802	FORKLIFT	09.0
1790	HUG	102.0
1789	HUG	102.0
1784	CHIPPER	102.0
1784	CHIPPER	73.0
1783	CHIPPER	05.0
1783	CHIPPER	09.0
1742	DRY CHAIN CONVEYR	00.9
1740	BACK/DRY CHAIN	02.0
1716	PLANER/ENCL	43.0
1711	PLANER/ENCL	45.0
1711	PLANER/ENCL	77.0
1710	PLANER/ENCL	72.0
1702	PLANER	112.0
1695	KILN CHAIN CONVTR	41.0
1693	KILN CHAIN CONVTR	41.0
1693	KILN CHAIN CONVTR	57.0
1693	KILN CHAIN CONVTR	05.0
1693	KILN CHAIN CONVTR	79.0
1693	KILN CHAIN CONVTR	03.0
1692	KILN CHAIN CONVTR	00.0
1692	KILN CHAIN CONVTR	41.0
1691	KILN CHAIN CONVTR	42.0
1691	KILN CHAIN CONVTR	03.0
1690	KILN CHAIN CONVTR	43.0
1690	KILN CHAIN CONVTR	05.0
1683	GREEN CHAIN CONVT	48.0
1683	GREEN CHAIN CONVT	43.0
1682	GREEN CHAIN CONVT	00.0
1682	GREEN CHAIN CONVT	03.0
1682	GREEN CHAIN CONVT	03.0
1682	GREEN CHAIN CONVT	02.0
1670	TRIMMER	43.0
1670	TRIMMER	44.0
1669	TRIMMER	40.0
1669	TRIMMER	44.0
1669	BACK/TRIMMER	40.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 903

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 5

DATE: 1969

EQUIP. CODE	GENERIC NAME	LEQ MSA
1647	RESAH-LARGE	42.0
1640	RESAH-LARGE	05.0
1630	EDGER	101.0
1635	EDGER	44.0
1627	HEAURIG	100.0
1620	HEAURIG	49.0
1623	HEAURIG	70.0
1622	HEAURIG	73.0
1614	CUT-OFF SAM	75.0
1618	CUT-OFF SAM	44.0
1603	DESMACK	00.0
1602	DESMACK	00.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9030

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 5

DATE: 1969

BACK. CODE	GENERAL NAME	LEO DBA	EQUIPMENT CODE	CONTRIBUTION CONTR.	EQUIPMENT CODE	CONTRIBUTION CONTR.	BACKGROUND CODE	CONTRIBUTION CONTR.
1881	BACK/FILEROOM	86.0	1623	0.60	1636	0.40	0	0.0
1881	BACK/FILEROOM	90.0	1647	0.50	1763	0.40	1636	0.10
1881	BACK/FILEROOM	83.0	1702	0.70	1670	0.30	0	0.0
1780	BACK/CHIPPER	100.0	1784	1.00	0	0.0	0	0.0
1700	BACK/PLANEK	92.0	1702	0.80	1713	0.20	0	0.0
1689	BACK/KILN CHAIN	90.0	1690	1.00	0	0.0	0	0.0
1689	BACK/KILN CHAIN	89.0	1692	0.80	1602	0.20	0	0.0
1686	BACK/KILN&CNTL RM	77.0	1687	1.00	0	0.0	0	0.0
1686	BACK/KILN&CNTL RM	76.0	1687	1.00	0	0.0	0	0.0
1686	BACK/KILN&CNTL RM	91.0	1687	1.00	0	0.0	0	0.0
1686	BACK/KILN&CNTL RM	88.0	1687	1.00	0	0.0	0	0.0
1680	BACK/GREEN CHAIN	74.0	1681	1.00	0	0.0	0	0.0
1645	BACK/RESAH	97.0	1647	1.00	0	0.0	0	0.0
1630	BACK/EDGER	94.0	1636	0.70	1623	0.30	0	0.0
1630	BACK/EDGER	97.0	1636	0.90	1670	0.10	0	0.0
1621	BACK/HEADQU	95.0	1623	0.70	1619	0.10	1636	0.20

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STU. DEV.
1702	PLANEK	1	112.0	0.0
1627	HEADRIG	1	102.0	0.0
1789	HUG	1	102.0	0.0
1790	HUG	1	102.0	0.0
1636	EDGER	1	101.0	0.0
1780	BACK/CHIPPER	1	100.0	0.0
1626	HEADRIG	1	99.0	0.0
1784	CHIPPER	2	97.5	6.30
1645	BACK/RESAM	1	97.0	0.0
1711	PLANEK/ENCL	2	96.5	1.41
1630	BACK/EDGER	2	95.5	2.12
1683	GREEN CHAIN CONVY	2	95.5	3.54
1619	CUT-OFF SAW	1	95.0	0.0
1621	BACK/HEADRIG	1	95.0	0.0
1618	CUT-OFF SAW	1	94.0	0.0
1635	EDGER	1	94.0	0.0
1670	TRIMMER	2	93.5	0.71
1715	PLANEK/ENCL	1	93.0	0.0
1647	RESAM-LARGE	1	92.0	0.0
1669	TRIMMER	2	92.0	2.83
1700	BACK/PLANEK	1	92.0	0.0
1710	PLANEK/ENCL	1	92.0	0.0
1695	KILN CHAIN CONVYK	1	91.0	0.0
1665	BACK/TRIMMER	1	90.0	0.0
1689	BACK/KILN CHAIN	2	89.5	0.71
1690	KILN CHAIN CONVYK	2	89.0	5.66
1692	KILN CHAIN CONVYK	2	88.5	3.54
1603	DEBARKER	1	88.0	0.0
1691	KILN CHAIN CONVYK	2	87.5	6.30
1783	CHIPPER	2	87.0	2.83
1742	DRY CHAIN CONVEYR	1	86.5	0.0
1802	FURKLIFT	2	86.5	3.54
1881	BACK/FILEROOM	3	86.3	3.51
1602	DEBARKER	1	86.0	0.0
1713	BACK. ONLY CONTR.	0	85.0	0.0
1646	RESAM-LARGE	1	85.0	0.0
1693	KILN CHAIN CONVYR	5	85.0	4.47
1682	GREEN CHAIN CONVY	4	83.5	1.73
1687	BACK. ONLY CONTR.	0	83.0	7.02
1686	BACK/KILN&CNCL RM	4	83.0	7.02

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1740	BACK/DRY CHAIN	1	82.8	0.0
1681	BACK. ONLY CUNTR.	0	79.0	0.0
1680	BACK/GREEN CHAIN	1	79.0	0.0
1623	HEADRIG	1	76.0	0.0
1622	HEADRIG	1	73.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1785	HUG	2	102.0	0.0
1699	PLAHER	5	97.8	2.00
1629	EDGER	2	97.5	0.0
1610	CUT-OFF	2	94.5	0.0
1664	TRIMMER	5	92.3	2.00
1774	CHIPPER	4	92.3	4.92
1644	RESAW/LARGE	2	88.5	0.0
1679	GREEN CHAIN	6	87.5	2.00
1620	HEADRIG	4	87.5	0.0
1688	KILN CHAIN	12	87.2	4.00
1600	DEBARKER	2	87.0	0.0
1800	FORKLIFT	2	86.5	3.54
1739	DRY CHAIN	2	84.8	0.0
1810	LUMBER CARRIER	1	83.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

O&N JOB NO. 9055

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242		PLANT NO: 5		DATE: 1980				
JOB CODE	JOB DESCRIPTION	NU OF PEKS.	TIME SPENT USING EQUIPMENT		CODE		TIME	
			CODE	TIME	CODE	TIME		
265	LABORER	1	1000	20.0	1740	80.0	0	0.0
261	CLEAN-UP MAN/REGULAR	1	1000	50.0	1700	20.0	1680	10.0
			1740	10.0	1689	10.0	0	0.0
228	ELECTRICIANS	1	1000	50.0	1630	30.0	1645	10.0
			1621	10.0	0	0.0	0	0.0
211	MILLWRIGHT/GENERAL	2	1681	50.0	1630	30.0	1645	10.0
			1621	10.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	3	1502	70.0	1000	30.0	0	0.0
202	FORKLIFT OPERATOR	2	1602	40.0	1000	60.0	0	0.0
201	LUMBER CARRIER OPER	1	1610	35.0	1000	65.0	0	0.0
182	TALLYMEN	2	1695	80.0	1665	20.0	0	0.0
176	DRY CHAIN PULLER	4	1742	80.0	1665	20.0	0	0.0
173	GRADER/PLANER MILL	2	1716	100.0	0	0.0	0	0.0
168	PLANER SET-UP MAN	1	1702	20.0	1700	55.0	1681	25.0
167	PLANER OPERATOR	1	1711	95.0	1710	5.0	0	0.0
163	GRADER/SURTING CHAIN	1	1682	80.0	1639	20.0	0	0.0
162	UNSTACKER PULLER	3	1692	40.0	1740	60.0	0	0.0
161	UNSTACKER-DRY	1	1692	40.0	1740	60.0	0	0.0
160	KILN OPERATOR	1	1686	60.0	1000	20.0	0	0.0
155	STICKERMAN-GREEN	1	1691	25.0	1689	75.0	0	0.0
154	STACKER-GREEN	1	1690	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 903

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 5

DATE: 1980

JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
151	GREEN CHAIN PULLER	4	1682	100.0	0	0.0	0	0.0
146	TRIMMER OPERATOR	1	1670	90.0	1609	10.0	0	0.0
148	TRIMMER OPERATOR	1	1670	10.0	1609	10.0	1630	80.0
144	LUMBER DIVERTER	1	1630	80.0	1621	20.0	0	0.0
140	RESAW OPERATOR	1	1647	85.0	1646	15.0	0	0.0
136	HOG OPERATOR	1	1600	50.0	1740	50.0	0	0.0
137	CHIPPER OPERATOR	1	1784	50.0	1783	50.0	0	0.0
134	EDGER OPERATOR	1	1638	90.0	1635	10.0	0	0.0
127	TAIL SAWYER	1	1623	65.0	1622	15.0	0	0.0
123	SAWYER	1	1623	85.0	1622	15.0	0	0.0
114	DEBARKER OPERATOR	1	1603	75.0	1619	15.0	1602	5.0
			1616	5.0	0	0.0	0	0.0
111	LOG CARRIER OPER	1	1000	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
26500	LABORER	1	1000	1.6	0.0
			1740	6.4	0.0
26100	CLEAN-UP MAN/REGULAR	1	1000	4.0	0.0
			1700	1.6	0.0
			1680	0.8	0.0
			1740	0.8	0.0
			1689	0.8	0.0
22800	ELECTRICIANS	1	1000	4.0	0.0
			1630	2.4	0.0
			1645	0.8	0.0
			1621	0.8	0.0
21100	MILLWRIGHT/GENERAL	2	1681	4.0	0.0
			1630	2.4	0.0
			1645	0.8	0.0
			1621	0.8	0.0
20200	FORKLIFT OPERATOR	5	1802	4.6	1.31
			1000	3.4	1.31
20100	LUMBER CARRIER OPER	1	1810	2.8	0.0
			1000	5.2	0.0
18200	TALLYMEN	1	1695	6.4	0.0
			1665	1.6	0.0
17600	DRY CHAIN PULLER	4	1742	6.4	0.0
			1665	1.6	0.0
17300	GRADER/PLANER MILL	2	1716	8.0	0.0
16800	PLANER SET-UP MAN	1	1702	1.6	0.0
			1700	4.4	0.0
			1881	2.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
16700	PLANER OPERATOR	1	1711	7.6	0.0
			1710	0.4	0.0
16300	GRADER/SORTING CHAIN	1	1682	6.4	0.0
			1689	1.6	0.0
16200	UNSTACKER PULLER	3	1692	3.2	0.0
			1740	4.8	0.0
16100	UNSTACKER-DRY	1	1692	3.2	0.0
			1740	4.8	0.0
16000	KILN OPERATOR	1	1686	6.4	0.0
			1000	1.6	0.0
15500	STICKERMAN-GREEN	1	1691	2.0	0.0
			1689	6.0	0.0
15400	STACKER-GREEN	1	1690	6.0	0.0
15100	GREEN CHAIN PULLER	4	1682	6.0	0.0
14801	TRIMMER OPERATOR	1	1670	0.8	0.0
			1664	0.8	0.0
			1630	0.4	0.0
14800	TRIMMER OPERATOR	1	1670	7.2	0.0
			1669	0.8	0.0
14400	LUMBER DIVERTER	1	1630	0.4	0.0
			1621	1.6	0.0
14000	RESAM OPERATOR	1	1647	6.8	0.0
			1646	1.2	0.0

ENVIRONMENTAL PROTECTION AGENCY

DOM JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-8HRS	NUM. STD. DEVIATION
13800	HOG OPERATOR	1	1000	4.0	0.0
			1790	4.0	0.0
13700	CHIPPER OPERATOR	1	1784	4.0	0.0
			1783	4.0	0.0
13400	EDGER OPERATOR	1	1636	7.2	0.0
			1635	0.8	0.0
12700	TAIL SAWYER	1	1623	6.8	0.0
			1622	1.2	0.0
12300	SAWYER	1	1623	6.8	0.0
			1622	1.2	0.0
11400	DEBARKER OPERATOR	1	1603	6.0	0.0
			1619	1.2	0.0
			1602	0.4	0.0
			1618	0.4	0.0
11100	LUG CARRIER OPER	1	1000	6.0	0.0

PLANT NO. 6

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 6

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEU DBA
1831	GANG SAW	79.00
1830	GANG SAW	74.00
1802	FORKLIFT	85.00
1802	FORKLIFT	85.00
1780	HUG/ENCL	94.00
1787	HUG/ENCL	91.00
1769	CHIPPER	97.00
1784	CHIPPER	104.00
1783	CHIPPER	92.00
1783	CHIPPER	90.00
1770	CONVEYOR	71.00
1770	CONVEYOR	87.00
1770	CONVEYOR	83.00
1752	STACK BANDER	83.00
1751	STACK BANDER	83.00
1742	DRY CHAIN CONVEYR	87.00
1742	DRY CHAIN CONVEYR	87.00
1742	DRY CHAIN CONVEYR	89.00
1716	PLANEK/ENCL	92.00
1716	PLANEK/ENCL	91.00
1711	PLANEK/ENCL	90.00
1711	PLANEK/ENCL	95.00
1710	PLANEK/ENCL	71.00
1702	PLANEK	113.00
1690	KILN CHAIN CONVYR	85.00
1695	KILN CHAIN CONVYR	85.00
1693	KILN CHAIN CONVYR	70.00
1693	KILN CHAIN CONVYR	82.00
1692	KILN CHAIN CONVYR	95.00
1692	KILN CHAIN CONVYR	85.00
1691	KILN CHAIN CONVYR	79.00
1691	KILN CHAIN CONVYR	92.00
1690	KILN CHAIN CONVYR	80.00
1690	KILN CHAIN CONVYR	90.00
1687	KILN	80.00
1680	BACK/KILN/ENCL RM	85.00
1682	GREEN CHAIN CONVY	80.00
1680	BACK/GREEN CHAIN	83.00
1670	TRIMMER	85.00

ENVIRONMENTAL PROTECTION AGENCY

EDM JOB NO. 90

INPUT EQUIPMENT DATA

SIC CODE: 292

PLANT NO: 0

DATE: 198

EQUIP. CODE	GENERIC NAME	LEU UBA
1670	TRIMMER	92.0
1669	TRIMMER	90.0
1669	TRIMMER	83.0
1659	KESAW-LARGE	74.0
1658	KESAW-LARGE	74.0
1638	EDGER	82.0
1637	EDGER	75.0
1627	HEADRIG	101.0
1626	HEADRIG	95.0
1623	HEADRIG	84.0
1622	HEADRIG	80.0
1617	CUT-OFF SAW	80.0
1616	CUT-OFF SAW	74.0
1603	WEGARKER	70.0
1602	WEGARKER	75.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9835

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 6

DATE: 1960

BACK. CODE	GENERAL NAME	LEG DBA	EQUIPMENT CODE	CONTRIBUTION TO BACKGROUND CONTR.	CONTR.	CONTR.	CONTR.
1881	BACK/FILEROOM	82.0	1831	0.60	1623	0.40	0 0.0
1881	BACK/FILEROOM	80.0	1702	1.00	0	0.0	0 0.0
1873	BACK/MACHINE SHOP	79.0	1776	0.60	1638	0.40	0 0.0
1871	BACK/BASEMENT	84.0	1776	0.80	1670	0.20	0 0.0
1871	BACK/BASEMENT	83.0	1776	0.60	1831	0.20	1623 0.20
1829	BACK/GANG SAW	99.0	1831	0.80	1658	0.20	0 0.0
1780	BACK/CHIPPER	95.0	1784	0.70	1776	0.30	0 0.0
1740	BACK/DRY CHAIN	85.0	1742	0.80	1711	0.20	0 0.0
1700	BACK/PLANE	91.0	1702	0.60	1670	0.40	0 0.0
1689	BACK/KILN CHAIN	78.0	1693	0.70	1692	0.30	0 0.0
1665	BACK/TRIMMER	89.0	1670	0.50	1702	0.30	1711 0.20
1665	BACK/TRIMMER	99.0	1670	1.00	0	0.0	0 0.0
1630	BACK/EDGER	92.0	1638	0.50	1776	0.40	1670 0.10
1621	BACK/HEADRIG	93.0	1623	0.60	1831	0.20	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STU. DEV.
1702	PLANER	1	113.0	0.0
1627	HEADRIG	1	101.0	0.0
1784	CHIPPER	2	100.5	4.95
1824	BACK/GANG SAW	1	99.0	0.0
1626	HEADRIG	1	95.0	0.0
1780	BACK/CHIPPER	1	95.0	0.0
1665	BACK/TRIMMER	2	94.0	7.07
1788	HUG/ENCL	1	94.0	0.0
1621	BACK/HEADRIG	1	93.0	0.0
1711	PLANER/ENCL	2	92.5	3.54
1630	BACK/EDGEK	1	92.0	0.0
1716	PLANER/ENCL	2	91.5	0.71
1710	PLANER/ENCL	1	91.3	0.0
1700	BACK/PLANER	1	91.0	0.0
1783	CHIPPER	2	91.0	1.0
1787	HUG/ENCL	1	91.0	0.0
1692	KILN CHAIN CONVYK	2	90.0	7.07
1742	DRY CHAIN CONVEYK	3	87.7	1.15
1670	TRIMMER	2	87.5	6.36
1669	TRIMMER	2	86.5	4.95
1682	GREEN CHAIN CONVY	1	86.5	0.0
1691	KILN CHAIN CONVYK	2	85.5	4.19
1690	KILN CHAIN CONVYK	2	85.0	7.07
1695	KILN CHAIN CONVYR	1	85.0	0.0
1696	KILN CHAIN CONVYK	1	85.0	0.0
1740	BACK/DRY CHAIN	1	85.0	0.0
1602	FORKLIFT	2	85.0	0.0
1623	HEADRIG	1	84.0	0.0
1686	BACK/KILN&CNTR RM	1	83.7	0.0
1871	BACK/BASEMENT	2	83.5	0.71
1680	BACK/GREEN CHAIN	1	83.1	0.0
1751	STACK BANDER	1	83.0	0.0
1752	STACK BANDER	1	83.0	0.0
1638	EDGEK	1	82.0	0.0
1881	BACK/FILEROOM	2	81.0	1.41
1617	CUT-OFF SAW	1	80.0	0.0
1622	HEADRIG	1	80.0	0.0
1687	KILN	1	80.0	0.0
1693	KILN CHAIN CONVYK	2	80.0	2.55
1616	CUT-OFF SAW	1	79.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1702	PLANKER	1	113.0	0.0
1627	HEADRIG	1	101.0	0.0
1784	CHIPPER	2	100.5	4.95
1829	BACK/GANG SAW	1	99.0	0.0
1626	HEADRIG	1	95.0	0.0
1780	BACK/CHIPPER	1	95.0	0.0
1665	BACK/TRIMMER	2	94.0	7.07
1788	HUG/ENCL	1	94.0	0.0
1621	BACK/HEADRIG	1	93.0	0.0
1711	PLANKER/ENCL	2	92.5	3.54
1630	BACK/EDGER	1	92.0	0.0
1716	PLANKER/ENCL	2	91.5	0.71
1710	PLANKER/ENCL	1	91.5	0.0
1700	BACK/PLANKER	1	91.0	0.0
1783	CHIPPER	2	91.0	1.41
1787	HUG/ENCL	1	91.0	0.0
1692	KILN CHAIN CONVYR	2	90.0	7.07
1742	DRY CHAIN CONVEYR	3	87.7	1.15
1670	TRIMMER	2	87.5	6.36
1776	CONVEYOR	3	87.0	4.00
1669	TRIMMER	2	86.5	4.95
1682	GREEN CHAIN CONVY	1	86.5	0.0
1691	KILN CHAIN CONVYR	2	85.5	9.19
1690	KILN CHAIN CONVYR	2	85.0	7.07
1695	KILN CHAIN CONVYR	1	85.0	0.0
1696	KILN CHAIN CONVYR	1	85.0	0.0
1740	BACK/DRY CHAIN	1	85.0	0.0
1802	FORKLIFT	2	85.0	0.0
1623	HEADRIG	1	84.0	0.0
1686	BACK/KILN&CNTL RM	1	83.7	0.0
1871	BACK/BASEMENT	2	83.5	0.71
1680	BACK/GREEN CHAIN	1	83.1	0.0
1751	STACK BANDER	1	83.0	0.0
1752	STACK BANDER	1	83.0	0.0
1638	EDGER	1	82.0	0.0
1881	BACK/FILEROOM	2	81.0	1.41
1617	CUT-OFF SAW	1	80.0	0.0
1622	HEADRIG	1	80.0	0.0
1687	KILN	1	80.0	0.0
1693	KILN CHAIN CONVYR	2	80.0	2.83

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1616	CUT-OFF SAW	1	79.0	0.0
1831	GANG SAW	1	79.0	0.0
1873	BACK/MACHINE SHOP	1	79.0	0.0
1603	DEBARKER	1	78.0	0.0
1689	BACK/KILN CHAIN	1	78.0	0.0
1602	DEBARKER	1	75.0	0.0
1637	EUGEN	1	75.0	0.0
1658	RESAW-LARGE	1	74.0	0.0
1659	RESAW-LARGE	1	74.0	0.0
1830	GANG SAW	1	74.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9639

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN _EQ(LBA)	STD. DEV.
1831	GANG SAW	1	79.0	0.0
1873	BACK/MACHINE SHOP	1	79.0	0.0
1603	DEBARKER	1	78.0	0.0
1689	BACK/KILN CHAIN	1	78.0	0.0
1602	DEBARKER	1	75.0	0.0
1637	EDGER	1	75.0	0.0
1658	RESAW-LARGE	1	74.0	0.0
1659	RESAW-LARGE	1	74.0	0.0
1830	GANG SAW	1	74.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1779	CHIPPER	4	95.0	3.04
1699	PLANER	6	95.4	2.55
1785	HUG	2	92.5	0.0
1620	HEADWIG	4	90.0	0.0
1739	DRY CHAIN	3	87.7	1.15
1776	CONVEYOR/GEN	3	87.0	4.00
1664	TRIMMER	4	87.0	5.70
1686	KILN CHAIN	10	85.1	6.94
1800	FORKLIFT	2	85.0	0.0
1679	GREEN CHAIN	2	84.0	0.0
1749	STACK BANDER	2	83.0	0.0
1685	KILN	2	81.5	0.0
1610	CUT-OFF	2	79.5	0.0
1629	EDGER	2	78.5	0.0
1826	GANG SAW	2	78.5	0.0
1600	DEBARKER	2	76.5	0.0
1644	RESAW/LARGE	2	74.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1779	CHIPPER	4	95.8	3.64
1699	PLANEK	6	95.4	2.55
1785	HUG	2	92.5	0.0
1620	HEADRIG	4	90.0	0.0
1739	DRY CHAIN	3	87.7	1.15
1776	CONVEYOR/GEN	3	87.0	4.00
1664	TRIMMER	4	87.0	5.70
1688	KILN CHAIN	10	85.1	6.94
1800	FORKLIFT	2	85.0	0.0
1679	GREEN CHAIN	2	84.8	0.0
1749	STACK BANDER	2	83.0	0.0
1685	KILN	2	81.8	0.0
1610	CUT-OFF	2	79.5	0.0
1629	EDGER	2	78.5	0.0
1826	GANG SAW	2	76.5	0.0
1600	DEBARKER	2	76.5	0.0
1644	RESAW/LARGE	2	74.0	0.0
1882	MECHANIC SHOP/GARAGE	0	0.0	0.0
1880	FILE ROOM	0	0.0	0.0
1878	PIPE SHOP	0	0.0	0.0
1876	ELECTRIC SHOP	0	0.0	0.0
1874	CARPENTRY SHOP	0	0.0	0.0
1872	MACHINE SHOP	0	0.0	0.0
1870	BASEMENT	0	0.0	0.0
1868	STORAGE	0	0.0	0.0
1848	RIP SAW/SPECIALTY	0	0.0	0.0
1819	QUADSAW	0	0.0	0.0
1813	TRANSFER CARRIER	0	0.0	0.0
1810	LUMBER CARRIER	0	0.0	0.0
1808	LUG CARRIER	0	0.0	0.0
1798	SAWMILL OFFICE	0	0.0	0.0
1792	PUMERHOUSE	0	0.0	0.0
1759	RESAW/SPECIALTY	0	0.0	0.0
1747	RAIL CAR LOAD	0	0.0	0.0
1724	MUULDER	0	0.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 903

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 6

DATE: 1969

JOB CODE	JOB DESCRIPTION	NO OF PERKS.	TIME CODE	SPENT TIME	USING CODE	EQUIPMENT TIME	CODE	TIME
266	HELPER	1	1000	100.0	0	0.0	0	0.0
266	HELPER	2	1029	20.0	1021	20.0	1005	20.0
			1030	20.0	1071	20.0	0	0.0
266	HELPER	1	1000	20.0	1029	20.0	1021	20.0
			1005	20.0	1030	20.0	0	0.0
265	LABORER	2	1000	100.0	0	0.0	0	0.0
265	LABORER	2	1029	20.0	1021	20.0	1005	20.0
			1030	20.0	1071	20.0	0	0.0
245	OILER	2	1029	20.0	1021	20.0	1005	20.0
			1030	20.0	1700	20.0	0	0.0
244	FILERS	3	1001	100.0	0	0.0	0	0.0
233	CARPENTERS	1	1000	20.0	1029	20.0	1021	20.0
			1005	20.0	1030	20.0	0	0.0
228	ELECTRICIANS	2	1000	20.0	1029	20.0	1021	20.0
			1005	20.0	1030	20.0	0	0.0
219	MACHINISTS	1	1073	100.0	0	0.0	0	0.0
217	WELDER	1	1000	100.0	0	0.0	0	0.0
211	MILLWRIGHT/GENERAL	4	1029	20.0	1021	20.0	1005	20.0
			1700	20.0	1030	20.0	0	0.0
202	FORKLIFT OPERATOR	7	1002	100.0	0	0.0	0	0.0
162	TALLYMEN	3	1000	100.0	0	0.0	0	0.0
162	TALLYMEN	2	1075	100.0	0	0.0	0	0.0
179	BANDER OPERATOR	2	1702	40.0	1700	20.0	1029	20.0
			1005	20.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9657

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 6

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
176	DRY CHAIN PULLER	6	1693	100.0	0	0.0	0	0.0
173	GRADER/PLANEK MILL	4	1716	100.0	0	0.0	0	0.0
168	PLANEK SET-UP MAN	2	1581	85.0	1000	10.0	1702	5.0
167	PLANEK OPERATOR	4	1711	90.0	1710	5.0	1000	5.0
163	GRADER/SORTING CHAIN	2	1692	100.0	0	0.0	0	0.0
162	UNSTACKER PULLER	6	1693	100.0	0	0.0	0	0.0
161	UNSTACKER-DRY	2	1692	100.0	0	0.0	0	0.0
160	KILN OPERATOR	2	1502	70.0	1000	20.0	1688	10.0
155	STILCKEMAN-GREEN	2	1691	80.0	1630	20.0	0	0.0
154	STACKER-GREEN	2	1690	80.0	1680	20.0	0	0.0
148	TRIMMER OPERATOR	2	1670	90.0	1669	10.0	0	0.0
146	TRIMMER OPERATOR	2	1670	85.0	1669	15.0	0	0.0
145	GREEN CHAIN OPERATOR	2	1682	70.0	1000	30.0	0	0.0
138	HOG OPERATOR	2	1768	50.0	1767	50.0	0	0.0
137	CHIPPER OPERATOR	2	1784	80.0	1763	40.0	0	0.0
134	EDGER OPERATOR	2	1638	90.0	1637	10.0	0	0.0
131	GANG SAW OPERATOR	2	1631	95.0	1630	5.0	0	0.0
127	TAIL SAWYER	2	1627	95.0	1626	5.0	0	0.0
123	SAWYER	2	1623	95.0	1622	5.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 403

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 6

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING EQUIPMENT					
			CODE	TIME	CODE	TIME	CODE	TIME
114	DEBARKER OPERATOR	2	1000	10.0	1003	75.0	1002	10.0
			1017	5.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-BHRS	NOR. STD. DEVIATION
26602	HELPER	1	1000	1.6	0.0
			1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
26601	HELPER	2	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1871	1.6	0.0
26600	HELPER	1	1000	8.0	0.0
26501	LABORER	2	1629	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1871	1.6	0.0
26500	LABORER	2	1000	8.0	0.0
24500	OILER	2	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
24400	FILERS	3	1881	8.0	0.0
23300	CARPENTERS	1	1000	1.6	0.0
			1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 6		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NOR. MEAN TIME-BHRS	NOR. STD. DEVIATION
22800	ELECTRICIANS	2	1000	1.6	0.0
			1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
21900	MACHINISTS	1	1873	6.0	0.0
21700	HELDER	1	1000	6.0	0.0
21100	MILLWRIGHT/GENERAL	4	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1700	1.6	0.0
			1630	1.6	0.0
20200	FORKLIFT OPERATOR	7	1604	6.0	0.0
18201	TALLYMEN	2	1695	6.0	0.0
18200	TALLYMEN	3	1000	6.0	0.0
17900	BANDER OPERATOR	2	1752	3.2	0.0
			1700	1.6	0.0
			1669	1.6	0.0
			1665	1.6	0.0
17600	DRY CHAIN PULLER	6	1693	6.0	0.0
17300	GRADER/PLANER MILL	4	1716	6.0	0.0
16800	PLANER SET-UP MAN	2	1881	6.8	0.0
			1000	0.8	0.0
			1704	0.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
16700	PLANER OPERATOR	4	1711	7.2	0.0
			1710	0.4	0.0
			1000	0.4	0.0
16300	GRADER/SOATING CHAIN	2	1692	8.0	0.0
16200	UNSTACKER PULLER	6	1693	8.0	0.0
16100	UNSTACKER-DRY	2	1692	8.0	0.0
16000	KILN OPERATOR	2	1802	5.0	0.0
			1000	1.6	0.0
			1686	0.8	0.0
15500	STICKERMAN-GREEN	2	1691	0.4	0.0
			1680	1.6	0.0
15400	STACKER-GREEN	2	1690	0.4	0.0
			1680	1.6	0.0
14800	TRIMMER OPERATOR	4	1670	7.0	0.23
			1669	1.0	0.23
14500	GREEN CHAIN OPERATOR	2	1682	5.6	0.0
			1000	2.4	0.0
13800	HOG OPERATOR	2	1786	4.0	0.0
			1787	4.0	0.0
13700	CHIPPER OPERATOR	2	1784	4.8	0.0
			1783	3.2	0.0
13400	EDGER OPERATOR	2	1636	7.2	0.0
			1637	0.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

888 JUB NU. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 6		NU DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-BHRS	NOR. STU. DEVIATION
13100	GANG SAW OPERATOR	2	1831	7.6	0.0
			1830	0.4	0.0
12700	TAIL SAWYER	2	1627	7.6	0.0
			1626	0.4	0.0
12300	SAWYER	2	1623	7.6	0.0
			1622	0.4	0.0
11400	DEBARKER OPERATOR	2	1000	0.8	0.0
			1603	0.0	0.0
			1602	0.8	0.0
			1617	0.4	0.0

PLANT NO. 7

ENVIRONMENTAL PROTECTION AGENCY

EPA JOB NO. 9033

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 7

DATE: 1950

EQUIP. CODE	GENERIC NAME	LEW CCA
1815	TRANSFER CARRIER	102.0
1810	LUMBER CARRIER	88.0
1810	LUMBER CARRIER	88.0
1802	FORKLIFT	88.0
1790	HUG	44.0
1784	HUG	40.0
1788	HUG/ENCL	46.0
1787	HUG/ENCL	41.0
1784	CHIPPER	103.1
1762	CHIPPER/ENCL	46.0
1768	RESAW-SPECIALTY	41.0
1764	RESAW-SPECIALTY	43.0
1742	DRY CHAIN CONVEYR	87.0
1742	DRY CHAIN CONVEYR	88.0
1742	DRY CHAIN CONVEYR	88.0
1742	DRY CHAIN CONVEYR	88.0
1742	DRY CHAIN CONVEYR	88.0
1718	PLANK/ENCL	40.0
1718	PLANK/ENCL	43.0
1718	PLANK/ENCL	40.0
1711	PLANK/ENCL	41.0
1711	PLANK/ENCL	43.0
1711	PLANK/ENCL	43.0
1711	PLANK/ENCL	44.0
1710	PLANK/ENCL	41.3
1702	PLANK	118.0
1702	PLANK	117.0
1696	KILN CHAIN CONVYR	43.0
1695	KILN CHAIN CONVYR	38.0
1693	KILN CHAIN CONVYR	38.0
1691	KILN CHAIN CONVYR	42.0
1691	KILN CHAIN CONVYR	47.0
1691	KILN CHAIN CONVYR	70.0
1691	KILN CHAIN CONVYR	80.0
1690	KILN CHAIN CONVYR	41.0
1690	KILN CHAIN CONVYR	88.0
1690	KILN CHAIN CONVYR	72.0
1690	KILN CHAIN CONVYK	85.0
1687	KILN	41.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9535

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 7

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEW DBA
1687	KILN	00.0
1682	GREEN CHAIN CUNY	30.0
1682	GREEN CHAIN CUNY	42.0
1682	GREEN CHAIN CUNY	45.0
1680	BACK/GREEN CHAIN	03.1
1672	TRIMMER	40.0
1671	TRIMMER	41.0
1670	TRIMMER	72.0
1669	TRIMMER	40.0
1669	TRIMMER	70.0
1647	RESAW-LARGE	41.0
1646	RESAW-LARGE	07.0
1638	EDGER	02.0
1636	EDGER	19.0
1637	EDGER	17.0
1637	EDGER	06.0
1636	EDGER	45.0
1635	EDGER	08.0
1623	HEADRIG	02.0
1623	HEADRIG	04.0
1622	HEADRIG	10.0
1622	HEADRIG	00.0
1613	CUT-OFF SAW	47.0
1612	CUT-OFF SAW	03.0
1603	DEBARKER	13.0
1602	DEBARKER	12.0

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 7

DATE: 1960

BACK. CODE	GENERAL NAME	LEV DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE	CONTR.	CODE	CONTR.	CODE	CONTR.
1883	BACK/MECHANIC SHP	70.0	1000	1.00	0	0.0	0	0.0
1881	BACK/FILE ROOM	70.0	1623	1.00	0	0.0	0	0.0
1873	BACK/MACHINE SHUP	70.0	1000	0.80	1802	0.20	0	0.0
1871	BACK/BASEMENT	84.0	1647	0.50	1704	0.20	1636	0.30
1871	BACK/BASEMENT	91.0	1770	0.60	1623	0.40	0	0.0
1760	BACK/SPEC RESAW	90.0	1704	0.80	1711	0.20	0	0.0
1740	BACK/DRY CHAIN	85.0	1693	0.50	1704	0.20	1711	0.30
1700	BACK/PLANER	92.0	1711	0.60	1704	0.40	0	0.0
1689	BACK/KILN CHAIN	85.0	1670	0.70	1693	0.20	1610	0.10
1665	BACK/TRIMMER	90.0	1670	0.50	1711	0.20	0	0.0
1665	BACK/TRIMMER	94.0	1670	0.60	1636	0.40	0	0.0
1645	BACK/RESAW	90.0	1647	0.60	1623	0.40	0	0.0
1621	BACK/HEADRIG	94.0	1623	1.00	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 463

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1702	PLANER	2	116.5	0.71
1704	CHIPPER	1	103.1	0.0
1015	TRANSFER CARRIER	1	102.0	0.0
1613	CUT-OFF SAW	1	97.0	0.0
1645	BACK/RESAW	1	96.0	0.0
1672	TRIMMER	1	96.0	0.0
1782	CHIPPER/ENCL	1	96.0	0.0
1788	HOG/ENCL	1	96.0	0.0
1636	EDGER	1	95.5	0.0
1696	KILN CHAIN CONVYR	1	95.0	0.0
1711	PLANER/ENCL	4	94.5	3.42
1621	BACK/HEADRIG	1	94.0	0.0
1790	HUG	1	94.0	0.0
1764	RESAW-SPECIALTY	1	93.0	0.0
1665	BACK/TRIMMER	2	92.0	2.0
1700	BACK/PLANER	1	92.0	0.0
1682	GREEN CHAIN CONVY	3	91.7	3.51
1710	PLANER/ENCL	1	91.3	0.0
1647	RESAW-LARGE	1	91.0	0.0
1671	TRIMMER	1	91.0	0.0
1716	PLANER/ENCL	3	91.0	1.73
1768	RESAW-SPECIALTY	1	91.0	0.0
1787	HUG/ENCL	1	91.0	0.0
1760	BACK/SPEC RESAW	1	90.0	0.0
1789	HOG	1	90.0	0.0
1871	BACK/BASEMENT	2	90.0	1.41
1635	EDGER	1	88.5	0.0
1695	KILN CHAIN CONVYR	1	88.0	0.0
1646	RESAW-LARGE	1	87.0	0.0
1802	FORKLIFT	1	86.0	0.0
1742	DRY CHAIN CONVEYR	5	86.4	2.07
1693	KILN CHAIN CONVYR	1	86.0	0.0
1687	KILN	2	85.5	7.70
1689	BACK/KILN CHAIN	1	85.0	0.0
1740	BACK/DRY CHAIN	1	85.0	0.0
1690	KILN CHAIN CONVYR	4	83.5	8.10
1680	BACK/GREEN CHAIN	1	83.1	0.0
1612	CUT-OFF SAW	1	83.0	0.0
1623	HEADRIG	2	83.0	1.41
1691	KILN CHAIN CONVYR	4	82.5	9.54

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STU. DEV.
1636	EDGER	2	80.5	2.12
1669	TRIMMER	2	80.0	14.14
1622	HEADRIC	2	79.0	1.41
1637	EDGER	2	78.5	2.12
1873	BACK/MACHINE SHOP	1	78.0	0.0
1816	TRANSFER CARRIER	1	76.0	0.0
1881	BACK/FILEROOM	1	76.0	0.0
1603	DEBARKER	1	73.0	0.0
1602	DEBARKER	1	72.0	0.0
1670	TRIMMER	1	72.0	0.0
1883	BACK/MECHANIC SHP	1	70.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIC

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ (DBA)	STD. DEV.
1779	CHIPPER	2	99.0	0.0
1699	PLANER	10	97.5	2.03
1785	HOG	4	92.8	0.0
1754	RESAW/SPECIALTY	2	92.0	0.0
1610	CUT-OFF	2	90.0	0.0
1679	GREEN CHAIN	4	89.5	3.51
1813	TRANSFER CARRIER	2	89.0	0.0
1644	RESAW/LARGE	2	89.0	0.0
1810	LUMBER CARRIER	2	88.0	0.0
1800	FORKLIFT	1	86.6	0.0
1739	DRY CHAIN	5	86.4	2.07
1685	KILN	2	85.5	7.78
1776	CONVEYOR/GEN	2	84.0	1.41
1688	KILN CHAIN	11	84.7	8.59
1664	TRIMMER	5	83.0	14.1
1629	EDGER	6	83.7	2.12
1620	HEADRIG	4	81.0	1.41
1600	DEBARREN	2	72.5	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9519

INPUT PERSONNEL HOUR ASSIGNMENTS

SIC CODE: 242

PLANT NO: 7

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT CODE TIME	USING EQUIPMENT CODE TIME	CODE TIME	CODE TIME
260	HELPER	6	1802 50.0	1000 50.0	0	0.0
220	ELECTRICIANS	30	1000 50.0 1805 10.0	1821 20.0 0 0.0	1700 20.0 0 0.0	20.0 0.0
223	MECHANICS	10	1000 100.0	0 0.0	0	0.0
219	MACHINISTS	8	1873 40.0	1000 60.0	0	0.0
211	MILLWRIGHT/GENERAL	40	1000 50.0 1805 10.0	1821 20.0 0 0.0	1700 20.0 0 0.0	20.0 0.0
202	FORKLIFT OPERATOR	7	1802 70.0	1000 30.0	0	0.0
201	LUMBER CARRIER OPER	7	1810 70.0	1000 35.0	0	0.0
191	SPECIALTY RESAW OFFB	1	1764 50.0	1700 35.0	1740 15.0	
190	SPECIALTY RESAW OPER	1	1764 50.0	1700 35.0	1740 15.0	
182	TALLYMEN	4	1889 100.0	0 0.0	0	0.0
176	DRY CHAIN PULLER	8	1893 100.0	0 0.0	0	0.0
176	DRY CHAIN PULLER	10	1742 100.0	0 0.0	0	0.0
173	GRADER/PLANER MILL	9	1889 100.0	0 0.0	0	0.0
168	PLANER SET-UP MAN	2	1711 45.0	1702 5.0	1881 50.0	
167	PLANER OPERATOR	2	1711 95.0	1710 5.0	0	0.0
159	TRANSFER OPERATOR	3	1887 20.0	1815 70.0	1816 10.0	
155	STICKERMAN-GREEN	4	1891 80.0	1889 20.0	0	0.0
154	STACKER-GREEN	4	1890 80.0	1889 20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9033

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 7

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
148	TRIMMER OPERATOR	2	1670	90.0	1669	10.0	0	0.0
148	TRIMMER OPERATOR	2	1670	95.0	1669	5.0	0	0.0
143	UNSCRAMBLE OPERATOR	2	1682	90.0	1680	10.0	0	0.0
140	RESAW OPERATOR	2	1647	85.0	1646	15.0	0	0.0
138	HUG OPERATOR	1	1767	15.0	1766	15.0	1621	20.0
			1665	20.0	1671	30.0	0	0.0
138	HUG OPERATOR	2	1671	50.0	1790	25.0	1784	25.0
134	EDGER OPERATOR	4	1635	85.0	1633	15.0	0	0.0
123	SAYER	4	1623	80.0	1622	20.0	0	0.0
120	CUT-OFF SAW OPERATOR	2	1613	10.0	1612	90.0	0	0.0
114	DEBARKER OPERATOR	2	1603	80.0	1602	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
26600	HELPER	6	1802	4.0	0.0
			1000	4.0	0.0
22800	ELECTRICIANS	30	1000	4.0	0.0
			1621	1.6	0.0
			1700	1.6	0.0
			1665	0.8	0.0
22300	MECHANICS	10	1000	6.0	0.0
21900	MACHINISTS	8	1873	3.2	0.0
			1000	4.8	0.0
21100	MILLWRIGHT/GENERAL	40	1000	4.0	0.0
			1621	1.6	0.0
			1700	1.6	0.0
			1665	0.8	0.0
20200	FORKLIFT OPERATOR	7	1802	3.6	0.0
			1000	2.4	0.0
20100	LUMBER CARRIER OPER	7	1810	3.6	0.0
			1000	2.4	0.0
19100	SPECIALTY RESAM OFFB	1	1764	4.0	0.0
			1700	2.8	0.0
			1740	1.2	0.0
19000	SPECIALTY RESAM OPER	1	1764	4.0	0.0
			1700	2.8	0.0
			1740	1.2	0.0
18200	TALLYMEN	4	1689	8.0	0.0
17601	DRY CHAIN PULLER	10	1742	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NGR. MEAN TIME-BKRS	NR. STD. DEVIATION
17600	DRY CHAIN PULLER	8	1693	8.0	0.0
17300	GRADER/PLANER MILL	9	1689	8.0	0.0
16800	PLANER SET-UP MAN	2	1711	3.6	0.0
			1702	0.4	0.0
			1881	4.0	0.0
16700	PLANER OPERATOR	2	1711	7.6	0.0
			1710	0.4	0.0
15900	TRANSFER OPERATOR	3	1687	1.6	0.0
			1815	5.6	0.0
			1816	0.6	0.0
15500	STICKERMAN-GREEN	4	1691	6.4	0.0
			1689	1.6	0.0
15400	STACKER-GREEN	4	1690	6.4	0.0
			1689	1.6	0.0
14800	TRIMMER OPERATOR	4	1670	7.4	0.23
			1669	0.6	0.23
14300	UNSCRAMBLE OPERATOR	2	1682	7.2	0.0
			1680	0.8	0.0
14000	RESAM OPERATOR	2	1647	6.8	0.0
			1646	1.2	0.0
13801	HUG OPERATOR	2	1871	4.0	0.0
			1790	2.0	0.0
			1784	2.0	0.0
13800	HUG OPERATOR	1	1787	1.2	0.0
			1788	1.2	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1871	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 7		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NR. MEAN TIME-8HRS	NR. STD. DEVIATION
13400	EDGER OPERATOR	4	1636	6.8	0.0
			1635	1.2	0.0
12300	SANYEK	4	1623	6.4	0.0
			1622	1.0	0.0
12000	CUT-OFF SAW OPERATOR	2	1613	0.8	0.0
			1612	7.2	0.0
11400	DEBARKER OPERATOR	2	1603	6.4	0.0
			1602	1.0	0.0

PLANT NO. 8

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9235

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 8

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEW UBA
1802	FORKLIFT	91.0
1802	FORKLIFT	85.0
1768	RESAW-SPECIALTY	90.0
1768	RESAW-SPECIALTY	97.0
1767	RESAW-SPECIALTY	94.0
1767	RESAW-SPECIALTY	95.0
1764	RESAW-SPECIALTY	101.0
1764	RESAW-SPECIALTY	103.0
1763	RESAW-SPECIALTY	100.0
1763	RESAW-SPECIALTY	100.0
1742	DRY CHAIN CONVEYR	90.0
1742	DRY CHAIN CONVEYR	84.0
1716	PLANER/ENCL	95.0
1716	PLANER/ENCL	97.0
1715	PLANER/ENCL	93.0
1711	PLANER/ENCL	92.0
1711	PLANER/ENCL	90.0
1710	PLANER/ENCL	84.0
1710	PLANER/ENCL	90.0
1702	PLANER	116.0
1702	PLANER	120.0
1695	KILN CHAIN CONVYR	92.0
1694	KILN CHAIN CONVYR	87.0
1694	KILN CHAIN CONVYR	85.0
1694	KILN CHAIN CONVYR	88.0
1694	KILN CHAIN CONVYR	90.0
1694	KILN CHAIN CONVYR	83.0
1694	KILN CHAIN CONVYR	88.0
1693	KILN CHAIN CONVYR	92.0
1693	KILN CHAIN CONVYR	89.0
1691	KILN CHAIN CONVYR	85.4
1690	KILN CHAIN CONVYR	88.4
1687	KILN	85.0
1670	TRIMMER	98.0
1669	TRIMMER	93.0
1669	TRIMMER	90.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9635

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 8

DATE: 1960

BACK. GENERAL NAME CODE	LEM DEA	EQUIPMENT CONTRIBUTION TO BACKGROUND		
		CODE CONTR.	CODE CONTR.	CODE CONTR.
1760 BACK/SPEC KESAH	91.0	1762 0.60	1702 0.40	0 0.0
1740 BACK/DKY CHAIN	85.0	1742 0.40	1694 0.30	1702 0.30
1700 BACK/PLANER	89.0	1702 0.70	1711 0.30	0 0.0
1700 BACK/PLANER	96.0	1702 0.70	1711 0.20	1762 0.10
1689 BACK/KILN CHAIN	80.0	1694 0.70	1776 0.20	1602 0.10
1665 BACK/TRIMMER	91.0	1670 0.40	1716 0.30	1776 0.30
1665 BACK/TRIMMER	84.0	1670 0.50	1702 0.30	1742 0.20
1665 BACK/TRIMMER	91.0	1670 0.40	1702 0.30	1716 0.30

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1702	PLANER	2	118.0	2.53
1764	RESAW-SPECIALTY	2	102.0	1.41
1763	RESAW-SPECIALTY	2	100.0	0.0
1768	RESAW-SPECIALTY	2	96.5	0.71
1670	TRIMMER	1	96.0	0.0
1716	PLANER/ENCL	2	96.0	1.41
1711	PLANER/ENCL	2	95.0	4.24
1767	RESAW-SPECIALTY	2	94.5	0.71
1715	PLANER/ENCL	1	93.0	0.0
1700	BACK/PLANER	2	92.5	4.95
1695	KILN CHAIN CONVYR	1	92.0	0.0
1669	TRIMMER	2	91.5	2.12
1760	BACK/SPEC RESAW	1	91.0	0.0
1693	KILN CHAIN CONVYR	2	90.5	2.12
1710	PLANER/ENCL	2	90.0	8.44
1762	BACK. ONLY CONTR.	1	88.0	0.0
1665	BACK/TRIMMER	3	88.7	4.04
1802	FORKLIFT	2	88.0	4.24
1742	DRY CHAIN CONVEYR	2	87.0	4.24
1694	KILN CHAIN CONVYR	6	86.8	2.48
1690	KILN CHAIN CONVYR	1	86.4	0.0
1691	KILN CHAIN CONVYR	1	85.4	0.0
1687	KILN	1	85.0	0.0
1740	BACK/DRY CHAIN	1	85.0	0.0
1689	BACK/KILN CHAIN	1	80.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9631

EQUIPMENT NOISE DATA AVERAGES (LEW) GENERALIZED

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1699	PLANER	9	99.0	5.00
1759	RESAW/SPECIALTY	9	97.2	0.87
1664	TRIMMER	3	93.0	2.12
1800	FORKLIFT	2	86.0	4.24
1686	KILN CHAIN	11	87.8	2.43
1739	DRY CHAIN	2	87.0	4.24
1685	KILN	1	85.0	0.0
1776	CONVEYOR/GEN	1	73.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSW JOB NO. 9833

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 8

DATE: 1980

JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME SPENT USING EQUIPMENT		CODE		TIME	
			CODE	TIME	CODE	TIME	CODE	TIME
262	CLEAN-UP MAN/DOWN TM	2	1000	100.0	0	0.0	0	0.0
261	CLEAN-UP MAN/REGULAR	2	1000	10.0	1700	30.0	1700	20.0
			1000	20.0	1000	20.0	0	0.0
223	MECHANICS	2	1000	100.0	0	0.0	0	0.0
219	MACHINISTS	1	1000	100.0	0	0.0	0	0.0
213	MILLWRIGHT/PLANER	1	1700	10.0	1000	75.0	1700	10.0
			1000	5.0	0	0.0	0	0.0
202	FURKLIFT OPERATOR	7	1002	60.0	1000	40.0	0	0.0
201	LUMBER CARRIER OPER	1	1010	60.0	1000	40.0	0	0.0
191	SPECIALTY RESAW OFFER	2	1708	100.0	0	0.0	0	0.0
190	SPECIALTY RESAW OPER	1	1704	100.0	0	0.0	0	0.0
182	TALLYMEN	2	1095	90.0	1000	10.0	0	0.0
179	BANDER OPERATOR	2	1000	100.0	0	0.0	0	0.0
176	DRY CHAIN PULLER	12	1742	90.0	1740	10.0	0	0.0
176	DRY CHAIN PULLER	1	1094	70.0	1000	30.0	0	0.0
173	GRADER/PLANER MILL	6	1710	90.0	1715	10.0	0	0.0
173	GRADER/PLANER MILL	1	1710	50.0	1000	50.0	0	0.0
173	GRADER/PLANER MILL	1	1094	50.0	1000	50.0	0	0.0
168	PLANER SET-UP MAN	6	1702	50.0	1711	50.0	0	0.0
167	PLANER OPERATOR	6	1711	90.0	1710	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 8

DATE: 1969

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT CODE TIME	USING EQUIPMENT CODE TIME	CODE TIME	CODE TIME
160	KILN OPERATOR	2	1667 30.0	1000 70.0	0	0.0
155	STICKERMAN-GREEN	1	1691 90.0	1689 10.0	0	0.0
154	STACKER-GREEN	7	1690 90.0	1689 10.0	0	0.0
154	STACKER-GREEN	1	1694 90.0	1000 10.0	0	0.0
148	TRIMMER OPERATOR	6	1670 90.0	1689 10.0	0	0.0
145	GREEN CHAIN OPERATOR	1	1694 30.0	1689 70.0	0	0.0
143	UNSCRAMBLE OPERATOR	1	1694 40.0	1689 60.0	0	0.0
104	PLANER SUPERVISOR	3	1000 15.0 1689 20.0	1700 25.0 1689 20.0	1760 2.0 0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

808 JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 8

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NO. MEAN TIME-8HRS	NO. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	2	1000	8.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1000	0.8	0.0
			1700	2.4	0.0
			1760	1.6	0.0
			1665	1.6	0.0
			1689	1.6	0.0
22300	MECHANICS	2	1000	8.0	0.0
21900	MACHINISTS	1	1000	8.0	0.0
21300	MILLWRIGHT/PLANER	1	1700	0.8	0.0
			1000	0.0	0.0
			1760	0.8	0.0
			1665	0.4	0.0
20200	FORKLIFT OPERATOR	7	1802	4.8	0.0
			1000	3.2	0.0
20100	LUMBER CARRIER OPER	1	1810	4.8	0.0
			1000	3.2	0.0
19100	SPECIALTY RESAH OFFB	2	1766	8.0	0.0
19000	SPECIALTY RESAH OPER	1	1764	8.0	0.0
18200	TALLYMEN	2	1695	7.2	0.0
			1689	0.8	0.0
17900	BANDER OPERATOR	2	1000	8.0	0.0
17601	DRY CHAIN PULLER	1	1694	5.6	0.0
			1689	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STU. DEVIATION
17600	DRY CHAIN PULLER	12	1742	7.2	0.0
			1740	0.8	0.0
17302	GRADER/PLANER MILL	1	1694	4.0	0.0
			1689	4.0	0.0
17301	GRADER/PLANER MILL	1	1716	4.0	0.0
			1000	4.0	0.0
17300	GRADER/PLANER MILL	6	1716	7.2	0.0
			1715	0.6	0.0
16800	PLANER SET-UP MAN	6	1702	4.0	0.0
			1711	4.0	0.0
16700	PLANER OPERATOR	6	1711	7.2	0.0
			1710	0.6	0.0
16000	KILN OPERATOR	2	1687	4.4	0.0
			1000	5.6	0.0
15500	STICKERMAN-GREEN	1	1691	7.2	0.0
			1689	0.8	0.0
15401	STACKER-GREEN	1	1694	7.2	0.0
			1000	0.8	0.0
15400	STACKER-GREEN	7	1690	7.2	0.0
			1689	0.8	0.0
14800	TRIMMER OPERATOR	6	1670	7.2	0.0
			1689	0.8	0.0
14500	GREEN CHAIN OPERATOR	1	1694	4.4	0.0
			1689	5.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 8

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-BHRS	NUM. STD. DEVIATION
14300	UNSCRAMBLE OPERATOR	1	1694	3.2	0.0
			1689	4.8	0.0
10400	PLANEK SUPERVISOR	3	1000	1.2	0.0
			1700	2.0	0.0
			1760	1.6	0.0
			1665	1.6	0.0
			1689	1.6	0.0

PLANT NO. 9

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9010

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 9

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEQ CBA
1683	BACK/MECHANIC SHP	67.0
1802	FORALIFT	66.0
1782	CHIPPER/ENCL	100.0
1782	CHIPPER/ENCL	100.0
1781	CHIPPER/ENCL	100.0
1781	CHIPPER/ENCL	70.0
1776	CONVEYOR	90.0
1690	KILN CHAIN CONVYR	64.0
1695	KILN CHAIN CONVYR	75.0
1693	KILN CHAIN CONVYR	70.0
1693	KILN CHAIN CONVYR	70.0
1691	KILN CHAIN CONVYR	72.0
1691	KILN CHAIN CONVYR	60.0
1690	KILN CHAIN CONVYR	74.0
1690	KILN CHAIN CONVYR	55.0
1689	BACK/KILN CHAIN	63.7
1687	KILN	70.0
1687	KILN	74.0
1682	GREEN CHAIN CONVY	66.0
1682	GREEN CHAIN CONVY	72.0
1680	BACK/GREEN CHAIN	63.1
1670	TRIMMER	60.0
1669	TRIMMER	77.0
1649	RESAH-LARGE	95.0
1646	RESAH-LARGE	90.0
1647	RESAH-LARGE	93.0
1646	RESAH-LARGE	68.5
1636	EDGEK	62.0
1635	EDGEK	70.0
1623	HEADRIG	33.0
1622	HEADRIG	70.0
1617	CUT-OFF SAH	70.0
1616	CUT-OFF SAH	65.0
1600	DEBARCKER	79.0

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 9

DATE: 1980

BACK. GENERAL NAME CODE	LEQ DBA	EQUIPMENT CONTRIBUTION TO		BACKGROUND	
		CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.
1861 BACK/FILEROOM	76.0	1625 0.60	1600 0.40	0	0.0
1873 BACK/MACHINE SHOP	72.0	1776 0.50	1638 0.30	1623	0.20
1871 BACK/BASEMENT	94.0	1625 0.50	1638 0.40	1776	0.10
1871 BACK/BASEMENT	90.0	1776 0.60	1670 0.20	0	0.0
1799 BACK/OFFICE/SANML	83.0	1638 0.50	1623 0.40	1776	0.10
1665 BACK/TRIMMER	92.0	1647 0.90	1776 0.10	0	0.0
1645 BACK/RESAW	94.0	1647 0.70	1776 0.30	0	0.0
1630 BACK/EDGER	90.0	1638 0.60	1670 0.20	0	0.0
1630 BACK/EDGER	96.0	1638 0.70	1623 0.30	0	0.0
1621 BACK/HEADKIG	95.0	1623 0.70	1638 0.30	0	0.0
1601 BACK/DEBARCKER	87.0	1600 0.60	1623 0.40	0	0.0
1601 BACK/DEBARCKER	93.0	1600 1.00	0 0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1782	CHIPPER/ENCL	2	107.0	1.41
1781	CHIPPER/ENCL	2	98.0	2.83
1621	BACK/HEADRIG	1	95.0	0.0
1649	RESAW-LARGE	1	95.0	0.0
1645	BACK/RESAW	1	94.0	0.0
1630	BACK/EDGER	2	93.0	4.24
1647	RESAW-LARGE	1	93.0	0.0
1665	BACK/TRIMMER	1	92.0	0.0
1871	BACK/BASEMENT	2	92.0	2.83
1690	KILN CHAIN CONVYR	2	91.0	4.24
1601	BACK/DEBARKER	2	90.0	4.24
1648	RESAW-LARGE	1	90.0	0.0
1682	GREEN CHAIN CONVYR	2	90.0	2.83
1691	KILN CHAIN CONVYR	2	89.0	4.24
1646	RESAW-LARGE	1	88.0	0.0
1802	FORKLIFT	1	86.0	0.0
1696	KILN CHAIN CONVYR	1	84.0	0.0
1689	BACK/KILN CHAIN	1	83.7	0.0
1680	BACK/GREEN CHAIN	1	83.1	0.0
1623	HEADRIG	1	83.0	0.0
1799	BACK/OFFICE/SAHML	1	83.0	0.0
1636	EDGER	1	82.0	0.0
1687	KILN	2	82.0	11.31
1670	TRIMMER	1	80.0	0.0
1622	HEADRIG	1	78.0	0.0
1635	EDGER	1	76.0	0.0
1669	TRIMMER	1	77.0	0.0
1693	KILN CHAIN CONVYR	2	77.0	1.41
1881	BACK/FILEROOM	1	76.0	0.0
1695	KILN CHAIN CONVYR	1	75.0	0.0
1873	BACK/MACHINE SHOP	1	72.0	0.0
1617	CUT-OFF SAW	1	70.0	0.0
1883	BACK/MECHANIC SHP	1	67.0	0.0
1638	BACK. ONLY CONTR.	0	66.0	0.0
1616	CUT-OFF SAW	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BDN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STU. DEV.
1779	CHIPPER	4	102.5	2.24
1644	RESAW/LARGE	4	91.0	0.0
1776	CONVEYOR/GEN	1	90.0	0.0
1679	GREEN CHAIN	3	87.7	2.83
1800	FORKLIFT	1	86.0	0.0
1688	KILN CHAIN	9	84.1	3.56
1685	KILN	2	82.0	11.31
1620	HEADRIG	2	80.5	0.0
1629	EDGER	2	80.0	0.0
1600	DEBARKER	1	79.0	0.0
1664	TRIMMER	2	78.5	0.0
1882	MECHANIC SHOP/GARAGE	1	67.5	0.0
1610	CUT-OFF	2	67.5	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9635

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 9

DATE: 1969

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE					
			CODE	TIME	CODE	TIME	CODE	TIME
145	GREEN CHAIN OPERATOR	2	1682	50.0	1680	50.0	0	0.0
140	RESAW OPERATOR	2	1647	75.0	1646	25.0	0	0.0
137	CHIPPER OPERATOR	2	1762	10.0	1621	5.0	1630	40.0
			1665	40.0	1776	5.0	0	0.0
134	EDGER OPERATOR	2	1636	75.0	1635	25.0	0	0.0
123	SANYEK	2	1623	75.0	1622	25.0	0	0.0
117	DECK SCALER	2	1601	100.0	0	0.0	0	0.0
114	DEBARKER OPERATOR	2	1600	50.0	1600	50.0	0	0.0
101	SAWMILL SUPERVISOR	2	1744	50.0	1621	10.0	1630	20.0
			1665	10.0	1645	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	1	1871	2.0	0.0
			1776	1.6	0.0
			1665	1.2	0.0
			1000	3.2	0.0
26100	CLEAN-UP MAN/REGULAR	1	1776	1.2	0.0
			1000	1.2	0.0
			1601	4.0	0.0
			1871	1.6	0.0
24500	DILERS	2	1000	2.0	0.0
			1871	4.0	0.0
			1621	0.8	0.0
			1630	0.8	0.0
			1665	0.4	0.0
24400	FILERS	2	1881	4.0	0.0
			1630	0.8	0.0
			1665	0.8	0.0
			1645	0.8	0.0
			1621	1.6	0.0
23300	CARPENTERS	2	1621	1.6	0.0
			1630	1.6	0.0
			1665	1.6	0.0
			1645	1.6	0.0
			1871	1.6	0.0
22300	MECHANICS	7	1883	6.0	0.0
21900	MACHINISTS	1	1873	6.0	0.0
21200	MILLWRIGHT/SAWMILL	8	1000	0.8	0.0
			1873	0.8	0.0
			1621	2.4	0.0
			1630	2.4	0.0
			1645	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NUR. MEAN TIME-HRS	NUR. STD. DEVIATION
20200	FORKLIFT OPERATOR	4	1602	4.8	0.0
			1000	3.2	0.0
18200	TALLYMEN	1	1695	0.0	0.0
17600	DRY CHAIN PULLER	4	1693	0.0	0.0
17300	GRADER/PLANEK MILL	1	1696	0.0	0.0
16000	KILN OPERATOR	2	1687	2.8	0.0
			1000	5.2	0.0
15500	STICKERMAN-GREEN	2	1691	4.0	0.0
			1684	4.0	0.0
15400	STACKER-GREEN	2	1690	4.0	0.0
			1684	4.0	0.0
14800	TRIMMER OPERATOR	2	1670	4.0	0.0
			1664	4.0	0.0
14500	GREEN CHAIN OPERATOR	2	1682	4.0	0.0
			1680	4.0	0.0
14000	RESAW OPERATOR	2	1647	0.0	0.0
			1646	2.0	0.0
13700	CHIPPER OPERATOR	2	1782	0.8	0.0
			1621	0.4	0.0
			1630	3.2	0.0
			1665	3.2	0.0
			1776	0.4	0.0
13400	EDGER OPERATOR	2	1636	0.0	0.0
			1635	2.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
12300	SANYER	2	1623	6.0	0.0
			1622	2.0	0.0
11700	DECK SCALER	2	1601	8.0	0.0
11400	DEBARKER OPERATOR	2	1600	4.0	0.0
			1000	4.0	0.0
10100	SAHMILL SUPERVISOR	2	1794	4.0	0.0
			1621	0.8	0.0
			1630	1.6	0.0
			1665	0.8	0.0
			1645	0.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9639

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STDEV. DEV.
1702	PLANEK	12	112.0	3.45
1735	MOULDER	2	103.5	2.12
1782	CHIPPER/ENCL	3	103.3	6.43
1784	CHIPPER	16	103.1	3.08
1783	KESAH-SPECIALTY	2	100.0	0.0
1813	CUT-OFF SAW	3	99.3	2.56
1781	CHIPPER/ENCL	2	98.0	2.83
1790	HUG	2	98.0	5.00
1627	HEADRIG	3	97.7	6.00
1628	HEADRIG	3	97.3	2.00
1624	QUADSAW	1	97.0	0.0
1784	KESAH-SPECIALTY	4	96.5	6.61
1780	BACK/CHIPPER	4	96.3	4.74
1645	BACK/KESAH	5	95.8	1.10
1636	EDGER	4	95.5	4.04
1683	GREEN CHAIN CONVEY	4	95.3	2.00
1614	CUT-OFF SAW	1	95.0	0.0
1649	KESAH-LARGE	1	95.0	0.0
1674	TRIMMER	2	95.0	0.0
1734	MOULDER	1	95.0	0.0
1788	HUG/ENCL	2	95.0	1.41
1623	QUADSAW	1	95.0	0.0
1829	BACK/GANG SAW	2	95.0	5.00
1788	KESAH-SPECIALTY	3	94.7	3.21
1784	HUG	3	94.7	6.43
1767	KESAH-SPECIALTY	2	94.5	0.71
1711	PLANEK/ENCL	15	94.2	3.07
1618	CUT-OFF SAW	1	94.0	0.0
1820	BACK/QUAD SAW	1	94.0	0.0
1851	KIPSAW-SPECIALTY	1	94.0	0.0
1630	BACK/EDGER	9	93.0	2.00
1621	BACK/HEADRIG	8	93.5	3.70
1647	KESAH-LARGE	4	93.0	2.10
1715	PLANEK/ENCL	1	93.0	0.0
1716	PLANEK/ENCL	14	92.6	2.01
1700	BACK/PLANEK	4	92.0	2.01
1634	EDGER	2	92.5	0.71
1672	TRIMMER	8	92.0	3.40
1725	BACK/MOULDER	1	92.0	0.0
1853	KIPSAW-SPECIALTY	1	92.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 90

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 4

DATE: 196

JOB CODE	JOB DESCRIPTION	NO OF PERKS.	TIME SPENT USING EQUIPMENT CODE	TIME	CODE	TIME	CODE	TIME
262	CLEAN-UP MAN/JUNIOR TR	1	1871	25.0	1776	20.0	1885	15.0
			1000	40.0	0	0.0	0	0.0
261	CLEAN-UP MAN/REGULAR	1	1776	15.0	1000	15.0	1801	50.0
			1871	20.0	0	0.0	0	0.0
245	OILER	2	1000	25.0	1871	50.0	1821	10.0
			1830	10.0	1885	5.0	0	0.0
244	FILERS	2	1881	50.0	1830	10.0	1885	10.0
			1845	10.0	1821	20.0	0	0.0
233	CARPENTERS	2	1821	20.0	1830	20.0	1885	0.0
			1845	20.0	1871	20.0	0	0.0
223	MELHMANICS	7	1883	100.0	0	0.0	0	0.0
219	MALMINISTS	1	1873	100.0	0	0.0	0	0.0
212	MILLWRIGHT/SAWMILL	3	1000	10.0	1873	10.0	1821	30.0
			1830	30.0	1845	20.0	0	0.0
202	FORKLIFT OPERATOR	4	1882	60.0	1000	40.0	0	0.0
182	TALLYMEN	1	1895	100.0	0	0.0	0	0.0
178	DRY CHAIN MILLER	4	1893	100.0	0	0.0	0	0.0
173	GRADER/PLANEK MILL	1	1896	100.0	0	0.0	0	0.0
160	KILN OPERATOR	2	1887	35.0	1000	65.0	0	0.0
155	STICKERMAN-GREEN	2	1891	50.0	1889	50.0	0	0.0
154	STACKER-GREEN	2	1890	50.0	1889	50.0	0	0.0
148	TRIMMER OPERATOR	2	1870	50.0	1889	50.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SJM JOB NO. 9035

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEW)

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1710	PLANEK/ENCL	4	91.3	5.12
1671	TRIMMER	1	91.0	0.0
1760	BACK/SPEC KESAH	3	91.0	1.00
1767	MUG/ENCL	1	91.0	0.0
1815	TRANSFER CARRIER	2	91.0	13.30
1665	BACK/TRIMMER	13	90.0	4.25
1640	KESAH-LARGE	1	90.0	0.0
1766	KESAH-SPEC/ENCL	2	90.0	1.41
1783	CHIPPER	9	90.0	2.90
1622	QUAUSAH	1	90.0	0.0
1671	BACK/BASEMENT	11	89.1	4.40
1635	EDGER	4	88.5	7.19
1646	KESAH-LARGE	4	88.5	3.07
1692	KILN CHAIN CONVYR	7	88.4	3.04
1696	KILN CHAIN CONVYR	3	88.0	6.05
1762	KESAH-SPEC/ENCL	2	88.0	2.03
1670	TRIMMER	11	87.7	3.20
1601	BACK/DEBARKER	4	87.5	5.00
1794	POWERHOUSE	2	87.5	4.95
1742	DRY CHAIN CONVEYR	10	86.9	2.13
1802	FORKLIFT	9	86.0	3.04
1682	GREEN CHAIN CONVY	15	86.5	4.50
1690	KILN CHAIN CONVYR	17	86.4	6.31
1796	POWERHOUSE	3	86.3	4.04
1669	TRIMMER	12	86.3	8.84
1645	KILN CHAIN CONVYR	5	86.2	6.83
1638	EDGER	8	85.7	8.24
1694	KILN CHAIN CONVYR	9	85.4	2.88
1641	KILN CHAIN CONVYR	14	85.4	6.34
1741	DRY CHAIN CONVEYR	10	85.2	3.05
1612	CUT-OFF SAW	2	85.0	2.83
1793	BACK/POWERHOUSE	3	84.7	3.00
1727	MULLDER/ENCL	2	84.5	4.75
1814	BACK/TRANSFER RM	1	84.0	0.0
1849	BACK/SPEC RIPSAN	1	84.0	0.0
1850	RIPSAN-SPECIALTY	1	84.0	0.0
1680	BACK/KILNECNTL RM	6	83.7	6.20
1689	BACK/KILN CHAIN	6	83.7	5.07
1637	EDGER	8	83.0	4.50
1667	KILN	7	83.0	6.52

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NJ. 4631

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
175c	STACK BANDER	3	83.3	1.53
1623	HEADRIG	4	83.2	4.06
1680	BACK/GREEN CHAIN	7	83.1	6.47
1744	BACK/OFFICE/SAMPL	1	83.0	0.0
1693	KILN CHAIN CONVYR	13	82.7	6.10
1740	BACK/DRY CHAIN	6	82.0	2.71
1852	KIPSAH-SPECIALTY	1	82.0	0.0
1731	MUULDER/ENCL	3	81.3	6.00
1881	BACK/FILEROOM	12	81.2	4.05
1622	HEADRIG	4	79.1	4.70
1513	WHEEL GRINDER	1	79.0	0.0
1751	STACK BANDER	3	79.0	3.51
1603	DEBARKER	7	78.3	6.75
1831	GANG SAW	2	78.0	1.0
1616	CUT-OFF SAW	5	77.8	12.55
1726	MUULDER/ENCL	2	76.5	2.12
1713	BALK. UNLY CONTR.	0	76.0	2.01
1661	GREEN CHAIN CONVY	1	76.0	0.0
1816	TRANSFER CARRIER	1	76.0	0.0
1617	CUT-OFF SAW	4	75.6	6.13
1830	GANG SAW	2	75.5	2.12
1602	DEBARKER	7	75.4	6.05
1877	BACK/ELECT SHOP	1	75.0	0.0
1874	BACK/PIPE SHOP	2	75.0	14.14
1654	KESAH-LARGE	1	74.0	0.0
1655	KESAH-LARGE	1	74.0	0.0
1653	KESAH-LARGE	1	74.0	0.0
1659	KESAH-LARGE	1	74.0	0.0
1607	DEBARKER	1	72.0	0.0
1873	BACK/MACHINE SHOP	7	71.9	6.34
1883	BACK/MECHANIC SHP	2	67.5	3.54
1606	DEBARKER	1	65.0	0.0
1864	BACK/STORAGE	1	65.0	0.0
1875	BACK/CARPNTR SHOP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9639

EQUIPMENT NOISE DATA AVERAGES (LEFT) GENERALIZED

SIC CODE = 242

NJ DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1779	CHIPPER	30	96.9	3.01
1699	PLANEK	40	93.3	3.62
1785	HUG	8	95.1	5.90
1759	RESAW/SPECIALTY	15	94.3	4.24
1819	QUADSAW	3	94.0	0.0
1803	LUG CARRIER	1	90.0	0.0
1664	TRIMMER	33	88.0	7.00
1848	KIP SAW/SPECIALTY	4	88.0	0.0
1776	CONVEYOR/GEN	5	87.0	3.11
1674	GREEN CHAIN	20	87.7	4.18
1624	EDGER	20	87.0	6.49
1724	MOULDER	10	86.0	4.44
1792	POWERHOUSE	5	86.6	4.37
1800	FORKLIFT	4	86.0	3.64
1644	RESAW/LARGE	14	86.2	3.14
1739	DRY CHAIN	20	86.0	3.11
1813	TRANSFER CARRIER	3	86.0	15.56
1680	KILN CHAIN	68	85.7	5.70
1810	LUMBER CARRIER	8	85.4	2.45
1620	HEADLOG	24	85.2	4.75
1610	CUT-OFF	16	84.3	6.40
1685	KILN	7	83.0	0.02
1749	STACK BANDER	6	81.2	2.77
1823	GANG SAW	4	76.0	1.00
1600	DEBARKER	17	76.0	6.79
1747	RAIL CAR LOAD	3	72.7	6.00
1798	SAWMILL OFFICE	1	70.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

80N JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERKS.	EQUIP. CODE	NDR. MEAN TIME-8HRS	NDR. STD. DEVIATION
26603	HELPER	1	1000	1.6	0.0
			1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
26602	HELPER	2	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1871	1.6	0.0
26601	HELPER	1	1000	0.0	0.0
26600	HELPER	0	1802	4.0	0.0
			1000	4.0	0.0
26504	LABORER	1	1000	4.0	0.0
			1630	0.8	0.0
			1740	0.8	0.0
			1820	1.2	0.0
			1700	1.2	0.0
26503	LABORER	1	1000	3.2	0.0
			1680	1.2	0.0
			1700	2.4	0.0
			1740	1.2	0.0
26502	LABORER	1	1000	1.6	0.0
			1740	0.4	0.0
26501	LABORER	2	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1871	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERKS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STU. DEVIATION
26500	LABORER	2	1000	8.0	0.0
26202	CLEAN-UP MAN/DOWN TM	3	1776	8.0	0.0
26201	CLEAN-UP MAN/DOWN TM	4	1000	8.0	0.0
26200	CLEAN-UP MAN/DOWN TM	1	1871	2.0	0.0
			1776	1.6	0.0
			1665	1.2	0.0
			1000	3.2	0.0
26106	CLEAN-UP MAN/REGULAR	2	1784	1.6	0.0
			1783	1.6	0.0
			1776	4.8	0.0
26105	CLEAN-UP MAN/REGULAR	1	1700	8.0	0.0
26104	CLEAN-UP MAN/REGULAR	1	1000	3.2	0.0
			1871	3.6	0.0
			1621	0.4	0.0
			1630	0.4	0.0
			1645	0.4	0.0
26103	CLEAN-UP MAN/REGULAR	2	1000	4.0	0.0
			1871	1.6	0.0
			1621	1.2	0.0
			1630	1.2	0.0
26102	CLEAN-UP MAN/REGULAR	1	1000	4.0	0.0
			1700	1.6	0.0
			1680	0.8	0.0
			1740	0.8	0.0
			1684	0.8	0.0
26101	CLEAN-UP MAN/REGULAR	2	1000	0.8	0.0
			1700	2.4	0.0
			1760	1.6	0.0
			1665	1.6	0.0
			1684	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NU DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
26100	CLEAN-UP MAN/REGULAR	1	1776	1.2	0.0
			1000	1.2	0.0
			1601	4.0	0.0
			1871	1.6	0.0
24802	POWERHOUSE OPERATOR	12	1794	4.0	0.0
			1796	4.0	0.0
24801	POWERHOUSE OPERATOR	3	1793	8.0	0.0
24800	POWERHOUSE OPERATOR	3	1686	0.4	0.0
			1793	7.6	0.0
24502	OILER	2	1601	1.6	0.0
			1820	1.6	0.0
			1645	1.6	0.0
			1829	1.6	0.0
			1630	1.6	0.0
24501	OILER	2	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
24500	OILER	2	1000	2.0	0.0
			1871	4.0	0.0
			1621	0.8	0.0
			1630	0.8	0.0
			1665	0.4	0.0
24403	FILERS	6	1000	8.0	0.0
24402	FILERS	5	1000	0.4	0.0
			1861	7.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

88M JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
24401	FILERS	14	1881	8.0	0.0
24400	FILERS	2	1881	4.0	0.0
			1630	0.8	0.0
			1665	0.8	0.0
			1645	0.8	0.0
			1621	1.0	0.0
23801	PIPE-FITTERS	2	1000	4.0	0.0
			1776	1.2	0.0
			1621	1.2	0.0
			1630	0.8	0.0
			1700	0.8	0.0
23800	PIPE-FITTERS	1	1875	1.2	0.0
			1000	0.4	0.0
			1820	2.4	0.0
			1740	2.4	0.0
			1793	1.6	0.0
23303	CARPENTERS	4	1000	4.0	0.0
			1776	1.2	0.0
			1621	1.2	0.0
			1630	0.8	0.0
			1700	0.8	0.0
23302	CARPENTERS	1	1820	1.6	0.0
			1645	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
			1740	1.6	0.0
23301	CARPENTERS	1	1000	1.6	0.0
			1824	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSD JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-8HRS	NO. STD. DEVIATION
23300	CARPENTERS	2	1621	1.6	0.0
			1630	1.6	0.0
			1665	1.6	0.0
			1645	1.6	0.0
			1671	1.6	0.0
22804	ELECTRICIANS	5	1877	2.0	0.0
			1776	4.0	0.0
			1621	0.8	0.0
			1630	0.4	0.0
			1700	0.8	0.0
22803	ELECTRICIANS	3	1820	1.6	0.0
			1645	1.6	0.0
			1630	1.6	0.0
			1700	1.6	0.0
			1740	1.6	0.0
22802	ELECTRICIANS	1	1000	4.0	0.0
			1630	2.4	0.0
			1645	0.8	0.0
			1621	0.8	0.0
22801	ELECTRICIANS	2	1000	1.6	0.0
			1824	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1630	1.6	0.0
22800	ELECTRICIANS	30	1000	4.0	0.0
			1621	1.6	0.0
			1700	1.6	0.0
			1665	0.8	0.0
22301	MECHANICS	15	1000	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NUM. MEAN TIME-BHRS	NUM. STD. DEVIATION
22300	MECHANICS	8	1883	8.0	0.0
21903	MACHINISTS	5	1873	1.0	0.0
			1820	1.0	0.0
			1630	1.0	0.0
			1700	1.0	0.0
			1740	1.0	0.0
21902	MACHINISTS	8	1873	3.2	0.0
			1000	4.8	0.0
21901	MACHINISTS	4	1000	8.0	0.0
21900	MACHINISTS	2	1873	8.0	0.0
21700	WELDER	1	1000	8.0	0.0
21600	SMUPMAN/GENERAL	1	1000	4.8	0.0
			1621	0.8	0.0
			1680	0.8	0.0
			1630	0.8	0.0
			1665	0.8	0.0
21302	MILLWRIGHT/PLANER	3	1000	4.0	0.0
			1702	0.8	0.0
			1621	0.8	0.0
			1740	2.4	0.0
21301	MILLWRIGHT/PLANER	3	1680	2.0	0.0
			1700	4.0	0.0
			1740	2.0	0.0
21300	MILLWRIGHT/PLANER	1	1700	0.8	0.0
			1000	6.0	0.0
			1760	0.8	0.0
			1665	0.4	0.0

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. * 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PKRS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
21202	MILLWRIGHT/SAWMILL	3	1871	1.6	0.0
			1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1680	1.6	0.0
21201	MILLWRIGHT/SAWMILL	4	1647	0.2	0.0
			1881	2.2	0.0
			1630	2.0	0.0
			1665	2.0	0.0
			1680	1.6	0.0
21200	MILLWRIGHT/SAWMILL	3	1000	0.8	0.0
			1871	0.8	0.0
			1621	2.4	0.0
			1630	2.4	0.0
			1645	1.6	0.0
21104	MILLWRIGHT/GENERAL	4	1621	0.8	0.0
			1000	1.2	0.0
21103	MILLWRIGHT/GENERAL	5	1601	1.6	0.0
			1820	1.6	0.0
			1645	1.6	0.0
			1829	1.6	0.0
			1630	1.6	0.0
21102	MILLWRIGHT/GENERAL	2	1881	4.0	0.0
			1630	2.4	0.0
			1645	0.8	0.0
			1621	0.8	0.0
21101	MILLWRIGHT/GENERAL	4	1829	1.6	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1700	1.6	0.0
			1630	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

ODN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-BHRS	NOR. STD. DEVIATION
21100	MILLWRIGHT/GENERAL	40	1000	4.0	0.0
			1621	1.6	0.0
			1700	1.6	0.0
			1665	0.8	0.0
20701	RAILCAR LOADER	11	1747	8.0	0.0
20700	RAILCAR LOADER	2	1000	8.0	0.0
20204	FORKLIFT OPERATOR	5	1752	1.6	0.0
			1602	0.4	0.0
20203	FORKLIFT OPERATOR	19	1800	8.0	0.0
20202	FORKLIFT OPERATOR	3	1800	4.0	0.0
			1662	1.2	0.0
			1680	0.8	0.0
20201	FORKLIFT OPERATOR	7	1802	8.0	0.0
20200	FORKLIFT OPERATOR	23	1802	9.0	0.69
			1000	3.0	0.69
20101	LUMBER CARRIER OPER	11	1810	8.0	0.0
20100	LUMBER CARRIER OPER	9	1810	5.2	0.94
			1000	2.8	0.94
19700	MOULDER OFFBEARER	3	1731	8.0	0.0
19601	MOULDER FEEDER	2	1727	6.4	0.0
			1726	1.6	0.0
19600	MOULDER FEEDER	1	1727	6.4	0.0
			1734	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBM JOB NO. 962

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NW DATES SPECIFIC

JOB CODE	JOB DESCRIPTION	NU. OF PERKS.	EQUIP. CODE	NR. MEAN TIME-8HRS	NR. ST DEVIATI
19102	SPECIALTY RESAW OFFB	2	1766	8.0	0.0
19101	SPECIALTY RESAW OFFB	1	1764 1700 1740	4.0 2.8 1.2	0.0 0.0 0.0
19100	SPECIALTY RESAW OFFB	2	1766	8.0	0.0
19002	SPECIALTY RESAW OPER	2	1762	8.0	0.0
19001	SPECIALTY RESAW OPER	1	1764 1700 1740	4.0 2.8 1.2	0.0 0.0 0.0
19000	SPECIALTY RESAW OPER	1	1764	8.0	0.0
18600	RIPSAW OFFBEARER	1	1853	8.0	0.0
18500	RIPSAW OPERATOR	1	1851	8.0	0.0
18204	TALLYMEN	1	1695 1689	8.4 1.6	0.0 0.0
18203	TALLYMEN	6	1000	8.0	0.0
18202	TALLYMEN	4	1689	8.0	0.0
18201	TALLYMEN	2	1695 1689	7.2 0.8	0.0 0.0
18200	TALLYMEN	3	1695	8.0	0.0
18100	CHECKERS	6	1740	8.0	0.0
17903	BANDER OPERATOR	3	1751 1752	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
17902	BANDER OPERATOR	2	1752	8.0	0.0
17901	BANDER OPERATOR	2	1752 1700 1689 1605	3.2 1.6 1.6 1.6	0.0 0.0 0.0 0.0
17900	BANDER OPERATOR	2	1000	8.0	0.0
17606	DRY CHAIN PULLER	20	1741	8.0	0.0
17605	DRY CHAIN PULLER	26	1741 1694	7.0 1.0	0.0 0.0
17604	DRY CHAIN PULLER	4	1742 1605	3.4 1.6	0.0 0.0
17603	DRY CHAIN PULLER	10	1742	8.0	0.0
17602	DRY CHAIN PULLER	1	1694 1689	3.6 2.4	0.0 0.0
17601	DRY CHAIN PULLER	12	1742 1740	7.2 0.8	0.0 0.0
17600	DRY CHAIN PULLER	18	1693	8.0	0.0
17306	GRADER/PLANEK MILL	16	1716 1700	3.6 2.4	0.0 0.0
17305	GRADER/PLANEK MILL	20	1716	8.0	0.0
17304	GRADER/PLANEK MILL	9	1689	8.0	0.0
17303	GRADER/PLANEK MILL	1	1694 1609	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 96

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NU DATES SPECIFI

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-BHRS	NUM. S DEVIAT
17302	GRADER/PLANEK MILL	1	1716 1000	4.0 4.0	0.0 0.0
17301	GRADER/PLANEK MILL	6	1716 1715	7.2 0.8	0.0 0.0
17300	GRADER/PLANEK MILL	1	1696	6.0	0.0
16804	PLANEK SET-UP MAN	2	1702 1711 1716	1.0 3.5 3.5	0.0 0.0 0.0
16803	PLANEK SET-UP MAN	1	1702 1700 1881	1.6 4.4 2.0	0.0 0.0 0.0
16802	PLANEK SET-UP MAN	2	1881 1000 1702	6.8 0.8 0.4	0.0 0.0 0.0
16801	PLANEK SET-UP MAN	2	1711 1702 1881	3.6 0.4 4.0	0.0 0.0 0.0
16800	PLANEK SET-UP MAN	6	1702 1711	4.0 4.0	0.0 0.0
16703	PLANEK OPERATOR	6	1711 1700	3.6 2.4	0.0 0.0
16702	PLANEK OPERATOR	7	1711 1702	7.6 0.4	0.34 0.34
16701	PLANEK OPERATOR	4	1711 1716 1000	7.2 0.4 0.4	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DEM JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NUM. MEAN TIME-HRS	NUM. STD. DEVIATION
16700	PLANE OPERATOR	9	1711 1710	7.3 0.7	0.20 0.20
16301	GRADER/SURTING CHAIN	1	1682 1684	0.4 1.6	0.0 0.0
16300	GRADER/SURTING CHAIN	2	1692	0.0	0.0
16201	UNSTACKER PULLER	3	1692 1740	3.2 4.6	0.0 0.0
16200	UNSTACKER PULLER	8	1693	0.0	0.0
16102	UNSTACKER-DRY	2	1692 1700	0.8 1.2	0.0 0.0
16101	UNSTACKER-DRY	1	1692 1740	3.2 4.6	0.0 0.0
16100	UNSTACKER-DRY	4	1692	0.0	0.0
16004	KILN OPERATOR	3	1000	0.0	0.0
16003	KILN OPERATOR	1	1680 1814	0.4 7.6	0.0 0.0
16002	KILN OPERATOR	1	1680 1000	0.4 1.6	0.0 0.0
16001	KILN OPERATOR	2	1802 1000 1680	5.6 1.6 0.8	0.0 0.0 0.0
16000	KILN OPERATOR	4	1687 1000	2.6 5.4	0.23 0.23

ENVIRONMENTAL PROTECTION AGENCY

OSN JOB NO. 463

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIC

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. ST DEVIATI
15901	TRANSFER OPERATOR	2	1814 1815	4.0 4.0	0.0 0.0
15900	TRANSFER OPERATOR	3	1817 1815 1816	1.6 5.6 0.8	0.0 0.0 0.0
15800	UNIPAL OPERATOR	2	1694	8.0	0.0
15503	STICKERMAN-GREEN	2	1691	6.0	0.0
15502	STICKERMAN-GREEN	2	1740 1691	2.8 5.2	0.0 0
15501	STICKERMAN-GREEN	5	1691 1680	6.9 1.1	0.44 0.44
15500	STICKERMAN-GREEN	8	1691 1689	5.4 2.6	1.80 1.80
15404	STACKER-GREEN	2	1740 1690	2.8 5.2	0.0 0.0
15403	STACKER-GREEN	7	1690	6.0	0.0
15402	STACKER-GREEN	5	1690 1680	2.6 5.4	3.51 1.91
15401	STACKER-GREEN	1	1694 1000	7.2 0.8	0.0 0.0
15400	STACKER-GREEN	13	1690 1689	6.5 1.5	1.15 1.15
15103	GREEN CHAIN PULLER	2	1681	5.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 292

NU DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NU. MEAN TIME-8HRS	NU. STD. DEVIATION
15102	GREEN CHAIN PULLER	12	1683	6.0	0.0
15101	GREEN CHAIN PULLER	9	1682 1680	6.4 1.6	0.0 0.0
15100	GREEN CHAIN PULLER	6	1682	8.0	0.0
14807	TRIMMER OPERATOR	4	1674 1670	4.0 4.0	0.0 0.0
14806	TRIMMER OPERATOR	4	1670 1672	4.0 4.0	0.0 0.0
14805	TRIMMER OPERATOR	2	1670	6.0	0.0
14804	TRIMMER OPERATOR	3	1672 1680	7.2 0.8	0.0 0.0
14803	TRIMMER OPERATOR	3	1670 1000	7.6 0.4	0.0 0.0
14802	TRIMMER OPERATOR	3	1672 1665	6.4 1.6	0.0 0.0
14801	TRIMMER OPERATOR	1	1670 1669 1630	0.8 0.8 0.4	0.0 0.0 0.0
14800	TRIMMER OPERATOR	17	1670 1669	6.8 1.2	1.08 1.08
14503	GREEN CHAIN OPERATOR	6	1682	8.0	0.0
14502	GREEN CHAIN OPERATOR	2	1682 1000	5.6 2.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BDN JOB NO. 963

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242

NO DATES SPECIFIED

PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. ST. DEVIATION
14501	GREEN CHAIN OPERATOR	1	1694	2.4	0.0
			1684	5.6	0.0
14500	GREEN CHAIN OPERATOR	2	1682	4.0	0.0
			1680	4.0	0.0
14402	LUMBER DIVERTER	3	1683	7.0	0.0
			1680	0.4	0.0
14401	LUMBER DIVERTER	3	1683	0.4	0.0
			1680	0.4	0.0
			1871	1.2	0.0
14400	LUMBER DIVERTER	1	1630	0.4	0.0
			1621	1.6	0.0
14302	UNSCRAMBLE OPERATOR	2	1672	0.0	0.0
14301	UNSCRAMBLE OPERATOR	2	1682	7.2	0.0
			1680	0.8	0.0
14300	UNSCRAMBLE OPERATOR	1	1694	3.2	0.0
			1689	4.8	0.0
14001	RESAM OPERATOR	2	1654	7.2	0.0
			1655	0.8	0.0
14000	RESAM OPERATOR	10	1647	5.8	0.74
			1646	2.2	0.74
13803	HUG OPERATOR	1	1000	4.0	0.0
			1790	4.0	0.0
13802	HUG OPERATOR	2	1788	4.0	0.0
			1787	4.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

888 JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-HRS	NUM. STD. DEVIATION
13801	MUG OPERATOR	2	1871	4.0	0.0
			1790	2.0	0.0
			1784	2.0	0.0
13600	MUG OPERATOR	1	1787	1.2	0.0
			1788	1.2	0.0
			1621	1.6	0.0
			1665	1.6	0.0
			1871	2.4	0.0
13703	CHIPPER OPERATOR	2	1784	4.8	0.0
			1783	0.8	0.0
			1621	2.4	0.0
13702	CHIPPER OPERATOR	2	1639	4.0	0.0
			1784	2.0	0.0
			1783	2.0	0.0
13701	CHIPPER OPERATOR	3	1784	4.5	0.46
			1783	3.5	0.46
13700	CHIPPER OPERATOR	2	1782	0.8	0.0
			1621	0.4	0.0
			1630	3.2	0.0
			1665	3.2	0.0
			1776	0.4	0.0
13401	EDGER OPERATOR	14	1638	0.4	0.85
			1637	1.6	0.85
13400	EDGER OPERATOR	11	1636	5.7	1.37
			1635	2.3	1.37
13300	SLAB BOARD PULLER	2	1639	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSR JOB NO. 963

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-HRS	NUM. ST DEVIATI
13100	GANG SAW OPERATOR	4	1831	7.4	0.23
			1830	0.6	0.23
12600	QUADSAW TAIL SAWYER	2	1824	8.0	0.0
12701	TAIL SAWYER	1	1823	8.8	0.0
			1822	1.2	0.0
12700	TAIL SAWYER	6	1827	8.8	0.62
			1826	1.2	0.62
12301	SAWYER	4	1823	3.6	0.0
			1822	0.4	0.0
			1822	4.0	0.0
12300	SAWYER	19	1823	8.3	0.61
			1822	1.7	0.61
12000	CUT-OFF SAW OPERATOR	2	1813	0.8	0.0
			1812	7.2	0.0
11701	DECK SCALER	2	1813	0.4	0.0
			1821	7.6	0.0
11700	DECK SCALER	2	1801	8.0	0.0
11406	DEBARKER OPERATOR	2	1806	3.2	0.0
			1807	4.8	0.0
11405	DEBARKER OPERATOR	2	1803	8.0	0.0
11404	DEBARKER OPERATOR	8	1803	5.4	0.37
			1802	2.2	0.37
			1817	0.4	0.0

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NU DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-8HRS	NOR. STD. DEVIATION
11403	DEBARKER OPERATOR	1	1603	6.0	0.0
			1619	1.2	0.0
			1602	0.4	0.0
			1618	0.4	0.0
11402	DEBARKER OPERATOR	2	1000	0.8	0.0
			1603	6.0	0.0
			1602	0.8	0.0
			1617	0.4	0.0
11401	DEBARKER OPERATOR	2	1603	6.4	0.0
			1602	1.6	0.0
11400	DEBARKER OPERATOR	2	1600	4.0	0.0
			1000	4.0	0.0
11101	LUG CARRIER OPER	1	1806	4.0	0.0
			1000	4.0	0.0
11100	LUG CARRIER OPER	1	1000	6.0	0.0
10800	LUG SORTER	2	1000	8.0	0.0
10700	POND SORTER	6	1000	8.0	0.0
10402	PLANE SUPERVISOR	4	1000	4.0	0.0
			1700	4.0	0.0
10401	PLANE SUPERVISOR	3	1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1660	1.6	0.0
			1665	1.6	0.0
10400	PLANE SUPERVISOR	3	1000	1.2	0.0
			1700	2.0	0.0
			1760	1.6	0.0
			1665	1.6	0.0
			1689	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 963

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NUM. MEAN TIME-GHRS	NUM. ST DEVIATI
10104	SAWMILL SUPERVISOR	3	1798	4.0	0.0
			1776	1.6	0.0
			1621	1.2	0.0
			1630	1.2	0.0
10103	SAWMILL SUPERVISOR	2	1601	1.6	0.0
			1620	1.6	0.0
			1645	1.6	0.0
			1629	1.6	0.0
			1630	1.6	0.0
10102	SAWMILL SUPERVISOR	3	1621	1.6	0.0
			1630	1.6	0.0
			1645	1.6	0.0
			1660	1.6	0.0
			1665	1.6	0.0
10101	SAWMILL SUPERVISOR	3	1000	0.4	0.0
			1621	2.0	0.0
			1630	2.0	0.0
			1665	2.0	0.0
			1660	1.6	0.0
10100	SAWMILL SUPERVISOR	2	1799	4.0	0.0
			1621	0.8	0.0
			1630	1.6	0.0
			1665	0.8	0.0
			1645	0.8	0.0

APPENDIX D
Foundry Industry Input Data

The tables in this Appendix for the Foundry Industry are similar to those described in Appendix C for the Sawmill Industry. However in this case, seven plants rather than nine are considered.

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 1

ENVIRONMENTAL PROTECTION AGENCY

OPR JUL NO. 9035

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 1

DATE: 1979

EQUIP. CODE	GENERIC NAME	LEA USA
1525	HAMMER	100.0
1513	WHEEL GRINDER	92.0
1511	BACK/ELEC GRINDER	88.0
1499	WHEELABRATOR	100.0
1497	SHAKEOUT TABLE	97.0
1490	SHAKEOUT CONVEYOR	105.0
1450	SHELL CORE	96.0
1440	FURNACE	93.0
1430	INDUCT. FURNACE	100.0
1374	MULLER	91.0
1330	SQUEZ/JOLT MULDER	94.0
1335	AUTO-MULDER	94.0
1117	PN DRILL GRINDER	95.0

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 9655

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 1

DATE: 1979

BACK. GENERAL NAME CODE	LEW DBA	EQUIPMENT CONTRIBUTION TO CODE CONTR.	BACKGROUND CODE CONTR.	BACKGROUND CODE CONTR.
1526 BACK/HAMMER	85.0	1525 0.40	1513 0.30	1117 0.30
1485 BACK/SHAKEDUT	88.0	1490 0.50	1473 0.30	1499 0.20
1334 BACK/MULDERS	85.0	1338 0.50	1335 0.30	1450 0.20

ENVIRONMENTAL PROTECTION AGENCY

82N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1490	SHAKEOUT CONVEYOR	1	105.0	0.0
1438	INDUCT. FURNACE	1	100.0	0.0
1499	WHEELABRATOR	1	100.0	0.0
1494	SHAKEOUT TABLE	1	97.0	0.0
1450	SHELL CORE	1	96.0	0.0
1117	PM DRILL GRINDER	1	95.0	0.0
1335	AUTO-MOLDER	1	94.0	0.0
1338	SQUEZ/JOLT MOLDER	1	94.0	0.0
1440	FURNACE	1	93.0	0.0
1513	WHEEL GRINDER	1	92.0	0.0
1374	MULLEN	1	91.0	0.0
1485	BACK/SHAKEOUT	1	88.0	0.0
1511	BACK/ELEC GRINDER	1	88.0	0.0
1334	BACK/MOLDERS	1	85.0	0.0
1526	BACK/HAMMER	1	85.0	0.0
1493	BACK. ONLY CONTR.	0	82.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DbA)	STD. DEV.
1484	SHAKE OUT/DUMPOUT	2	101.0	0.0
1525	HAMMERING	1	100.0	0.0
1497	WHEELABRATOR	1	100.0	0.0
1434	FURNACE	2	96.5	0.0
1448	CORE OVEN	1	96.0	0.0
1103	PNEUMATIC GRINDER	1	95.0	0.0
1333	HOLDER	2	94.0	0.0
1371	MULLER	1	91.0	0.0
1510	ELECTRIC GRINDERS	2	90.0	0.0

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 1

DATE: 1979

JOB CODE	JOB DESCRIPTION	NO OF PEXS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
467	WHELLEBRATOR OPER	1	1499	60.0	1490	10.0	1494	20.0
			1485	10.0	0	0.0	0	0.0
462	CUPOLA OPERATOR	1	1440	70.0	1485	30.0	0	0.0
461	INSPECTOR	1	1490	20.0	1525	20.0	1526	80.0
459	SHIFTER	3	1440	10.0	1438	10.0	1485	80.0
450	DUMPOUT/SHAKEOUT OP	2	1490	70.0	1494	20.0	1485	10.0
427	CURE GLUER	1	1450	20.0	1334	80.0	0	0.0
421	SHELL CURE OPERATOR	1	1450	70.0	1334	30.0	0	0.0
385	MULLER OPER	1	1574	80.0	1334	40.0	0	0.0
367	POURER	6	1440	30.0	1438	30.0	1485	40.0
340	SQUEZ/JOIT MOLDER OP	14	1338	70.0	1334	30.0	0	0.0
339	AUTO-MOLDER OPERATOR	2	1335	80.0	1334	20.0	0	0.0
328	FURNACE CHARGER	1	1440	30.0	1438	30.0	1485	40.0
327	INDUCT. FURNACE OPER	1	1438	70.0	1485	30.0	0	0.0
280	WHEEL GRINDER OPER	8	1513	80.0	1511	20.0	0	0.0
276	PN DRILL GRINDER OP	1	1117	80.0	1526	20.0	0	0.0
202	FORKLIFT OPERATOR	2	1338	15.0	1440	15.0	1438	15.0
			1490	25.0	1485	30.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BOB JOB NO. 9633

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	HR. MEAN TIME-BKRS	HR. STD. DEVIATION
46700	HELLABRATOR OPER	1	1499	4.8	0.0
			1490	0.8	0.0
			1494	1.0	0.0
			1435	0.8	0.0
46200	COPOLA OPERATOR	1	1440	3.6	0.0
			1485	2.4	0.0
46100	INSPECTOR	1	1490	1.0	0.0
			1525	1.0	0.0
			1526	4.8	0.0
45900	SHIFTER	3	1440	0.8	0.0
			1430	0.8	0.0
			1485	0.4	0.0
45000	DUMPOUT/SHAKEDUT OP	2	1490	3.6	0.0
			1494	1.0	0.0
			1485	0.8	0.0
42700	CORE CLUCK	1	1450	1.0	0.0
			1334	8.4	0.0
42100	SHELL CORE OPERATOR	1	1450	3.6	0.0
			1334	2.4	0.0
36500	MULLER OPER	1	1374	4.8	0.0
			1334	3.2	0.0
36700	POURER	6	1440	2.4	0.0
			1430	2.4	0.0
			1485	3.2	0.0
34000	SQUEZ/ JOLT MULLER OP	14	1330	3.6	0.0
			1334	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

SEN JOB NO. 7838

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 932		PLANT NO. = 1		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
33900	AUTO-MOLDER OPERATOR	2	1335	0.4	0.0
			1334	1.0	0.0
32800	FURNACE CHARGER	1	1440	2.4	0.0
			1438	2.4	0.0
			1405	3.2	0.0
32700	INDUCT. FURNACE OPER	1	1436	2.0	0.0
			1405	2.4	0.0
26000	WHEEL GRINDER OPER	0	1513	0.4	0.0
			1511	1.0	0.0
27600	PN DRILL GRINDER OP	1	1117	0.4	0.0
			1520	1.0	0.0
20200	FORKLIFT OPERATOR	2	1336	1.2	0.0
			1440	1.2	0.0
			1438	1.2	0.0
			1490	2.0	0.0
			1405	2.4	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 2

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9039

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 2

DATE: 1979

EQUIP. CODE	GENERIC NAME	LEU DBA
1517	STAND STONE GRIND	91.0
1517	STAND STONE GRIND	92.0
1503	RADIAL SAW	102.0
1502	BAND SAW	94.0
1480	SHAKEOUT	94.0
1486	SHAKEOUT	07.0
1482	PN VIBRATOR	102.0
1459	CUKE SET LINE	93.0
1451	NU-BAKE COKE	94.0
1450	SHELL CORE	90.0
1440	CRUCIBLE	93.0
1433	BALK/FURNACE	03.0
1374	MULLER	07.0
1374	MULLER	91.0
1336	SQUEZ/JOLT MOLDER	98.0
1194	ROTUBLAST	00.0
1146	PN TAMPER	97.0
1117	PN DRILL GRINDER	90.0
1117	PN DRILL GRINDER	09.0

ENVIRONMENTAL PROTECTION AGENCY

OSN JOB NO. 9035

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 2

DATE: 1979

BACK. CODE	GENERAL NAME	LEQ DBA	EQUIPMENT CODE	CONTRIBUTION CONTR.	CONTRIBUTION CONTR.	CONTRIBUTION CONTR.	CONTRIBUTION CONTR.
1511	BACK/ELEC GRINDER	88.0	1513	1.00	0	0.0	0 0.0
1501	BACK/SAN/METAL	88.0	1502	1.00	0	0.0	0 0.0
1501	BACK/SAN/METAL	88.0	1503	0.40	1502	0.40	1482 0.20
1485	BACK/SHAKEOUT	88.0	1486	0.40	1374	0.30	1459 0.30
1485	BACK/SHAKEOUT	88.0	1486	1.00	0	0.0	0 0.0
1458	BACK/COKE SET LIN	88.0	1459	1.00	0	0.0	0 0.0
1449	BACK/COKE EQUIP	82.0	1450	0.50	1451	0.50	0 0.0
1445	BACK/CRUCIBLE	90.0	1446	1.00	0	0.0	0 0.0
1334	BACK/MULDERS	87.0	1336	1.00	0	0.0	0 0.0
1145	BACK/PN TAMPER	88.0	1146	1.00	0	0.0	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1482	PN VIBRATOR	1	102.0	0.0
1503	RADIAL SAW	1	102.0	0.0
1338	SQUEZ/JOLT MOLDER	1	98.0	0.0
1146	PN TAMPER	1	97.0	0.0
1450	SHELL CORE	1	96.0	0.0
1446	CRUCIBLE	1	95.0	0.0
1451	NO-BAKE CORE	1	94.0	0.0
1502	BAND SAW	1	94.0	0.0
1459	CORE SET LINE	1	93.0	0.0
1517	STAND STONE GRIND	2	91.5	0.71
1486	SHAKEOUT	2	90.5	4.95
1445	BACK/CRUCIBLE	1	90.0	0.0
1117	PN DRILL GRINDER	2	89.5	0.71
1374	MULLER	2	89.0	2.83
1513	BACK. ONLY CONTR.	1	88.0	0.0
1145	BACK/PN TAMPER	1	88.0	0.0
1194	RUTOBLAST	1	88.0	0.0
1458	BACK/CORE SET LIN	1	88.0	0.0
1485	BACK/SHAKEOUT	2	88.0	0.0
1501	BACK/SAW/METAL	2	88.0	0.0
1511	BACK/ELEC GRINDER	1	88.0	0.0
1334	BACK/MOLDERS	1	87.0	0.0
1435	BACK/FURNACE	1	83.5	0.0
1449	BACK/CORE EQUIP	1	82.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIC

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1480	PNEUMATIC VIBRATOR	1	102.0	0.0
1500	SAW/METAL	2	98.0	0.0
1333	MULDER	1	98.0	0.0
1144	PNEUMATIC TAMPER	1	97.0	0.0
1448	CURE OVEN	2	95.0	0.0
1444	CRUCIBLE	1	95.0	0.0
1457	CURE SET LINE	1	93.0	0.0
1484	SHAKEOUT/DUMPOUT	2	90.5	4.95
1510	ELECTRIC GRINDERS	3	90.3	0.71
1103	PNEUMATIC GRINDER	2	89.5	0.71
1371	MULLER	2	89.0	2.83
1187	ABRASIVE BLASTING	1	88.0	0.0
1434	FURNACE	1	83.5	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSHA JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 2

DATE: 1979

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME CODE	SPENT TIME	USING CODE	EQUIPMENT TIME	CODE	TIME
504	RADIAL SAW OPERATOR	2	1503	60.0	1501	40.0	0	0.0
502	BAND SAW OPERATOR	2	1502	60.0	1501	40.0	0	0.0
440	SHAKEOUT OPERATOR	2	1488	80.0	1501	20.0	0	0.0
440	SHAKEOUT OPERATOR	4	1488	60.0	1485	40.0	0	0.0
426	CURE SETTER	3	1459	80.0	1485	20.0	0	0.0
422	NU-BARE CURE OPER	5	1451	50.0	1444	50.0	0	0.0
421	SHELL CURE OPERATOR	5	1450	50.0	1444	50.0	0	0.0
402	ROTUBLAST OPERATOR	1	1194	30.0	1501	70.0	0	0.0
365	MULLER OPER	1	1374	70.0	1501	30.0	0	0.0
385	MULLER OPER	1	1374	70.0	1485	30.0	0	0.0
367	POURER	2	1446	20.0	1485	70.0	1435	10.0
367	POURER	2	1446	20.0	1501	70.0	1435	10.0
341	FLOOR MOLDER	2	1148	20.0	1501	70.0	1462	10.0
340	SQUEEZ/JULI MOLDER OP	4	1338	70.0	1334	30.0	0	0.0
325	FURNACE OPERATOR	4	1448	60.0	1445	20.0	1485	20.0
282	TRIM GRINDER OPER	4	1503	60.0	1501	40.0	0	0.0
281	STAND STONE GRINDER	4	1517	60.0	1501	40.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 7855

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	WKR. MEAN TIME-HRS	WKR. STD. DEVIATION
50400	RADIAL SAW OPERATOR	2	1503	4.8	0.0
			1501	3.2	0.0
50200	BAND SAW OPERATOR	2	1502	4.8	0.0
			1501	3.2	0.0
44001	SHAKEOUT OPERATOR	4	1488	4.8	0.0
			1485	3.2	0.0
44000	SHAKEOUT OPERATOR	2	1488	0.4	0.0
			1501	1.0	0.0
42600	CORE SETTER	3	1459	0.4	0.0
			1485	1.0	0.0
42200	NO-BAKE CORE OPER	5	1451	4.0	0.0
			1449	4.0	0.0
42100	SHELL CORE OPERATOR	5	1450	4.0	0.0
			1449	4.0	0.0
40200	ROTUBLAST OPERATOR	1	1194	2.4	0.0
			1501	3.6	0.0
38501	MULLER OPER	1	1374	3.6	0.0
			1485	2.4	0.0
38500	MULLER OPER	1	1374	3.6	0.0
			1501	2.4	0.0
36701	POURER	2	1446	1.0	0.0
			1501	3.6	0.0
			1435	0.0	0.0
36700	POURER	2	1446	1.0	0.0
			1485	3.6	0.0
			1435	0.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

2004 JOB NO. 9033

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	HR. MEAN TIME-hrs	HR. STD. DEVIATION
34100	FLOOR MOLDER	2	1140	1.0	0.0
			1501	5.0	0.0
			1402	0.0	0.0
34000	SQUEEZ/ JOLT MOLDER OP	4	1330	5.0	0.0
			1334	2.4	0.0
32500	FURNACE OPERATOR	4	1440	4.8	0.0
			1445	1.0	0.0
			1405	1.0	0.0
28200	TRIM GRINDER OPER	4	1503	4.8	0.0
			1501	3.2	0.0
20100	STAND STONE GRINDER	4	1517	4.0	0.0
			1501	3.2	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 3

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 9035

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 3

DATE: 1974

EQUIP. CODE	GENERIC NAME	LEO DBA
1517	STAND STONE GRIND	91.0
1512	SWING GRINDER	93.0
1511	BACK/ELEC GRINDER	88.0
1507	CUT-OFF WHEEL	102.0
1499	WHEELABRATOR	89.0
1494	SHAKEOUT TABLE	105.0
1491	SHAKEOUT CONVEYOR	98.0
1452	CORE OVEN	82.0
1450	SHELL CURE	94.0
1438	INDUCT. FURNACE	87.0
1437	ARC FURNACE	102.0
1398	EXHAUST FAN	93.0
1395	BACK/EXHAUST FAN	87.0
1392	HYDRAULIC PUMP	98.0
1387	SANDSLINGER	98.0
1373	SANDMULLER	98.0
1340	MOLDER-PACEMAKER	82.0
1337	HI-PRESS. MOLDER	92.0
1336	SHELL MOLDER	94.0
1195	SPIRAL DUST	98.0
1180	ARC AIR GOUGETS	102.0
1148	PN TAMPER	90.0
1137	PN CHISEL	102.0
1120	PN WHEEL GRINDER	93.0
1114	PN CONE GRINDER	97.0
1119	PN CONE GRINDER	98.0
1119	PN CONE GRINDER	94.0
1118	PN DISC GRINDER	99.0
1118	PN DISC GRINDER	97.0

ENVIRONMENTAL PROTECTION AGENCY

SEM JOB NO. 9533

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 3

DATE: 1974

BACK. GENERAL NAME CODE	LEQ DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR.	CODE CONTR.	CODE CONTR.
1506 BACK/CUTOFF WHEEL	85.0	1507 0.40	1116 0.30	1336 0.30
1506 BACK/CUTOFF WHEEL	85.0	1507 1.00	0 0.0	0 0.0
1485 BACK/SHAKEDUT	96.0	1493 1.00	0 0.0	0 0.0
1449 BACK/COKE EQUIP	78.0	1452 1.00	0 0.0	0 0.0
1435 BACK/FURNACE	85.0	1437 1.00	0 0.0	0 0.0
1435 BACK/FURNACE	85.0	1437 1.00	0 0.0	0 0.0
1334 BACK/MULDERS	85.0	1336 0.50	1337 0.50	0 0.0
1159 BACK/WLD/BRN/GUUG	85.0	1160 1.00	0 0.0	0 0.0
1159 BACK/WLD/BRN/GUUG	85.0	1160 0.40	1450 0.30	1373 0.30
1136 BACK/PN CHISEL	85.0	1137 1.00	0 0.0	0 0.0
1136 BACK/PN CHISEL	85.0	1137 0.40	1441 0.30	1119 0.30

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1494	SHAKEOUT TABLE	1	109.0	0.0
1137	PN CHISEL	1	102.0	0.0
1160	AKC AIR GOUGERS	1	102.0	0.0
1437	AKC FURNACE	1	102.0	0.0
1507	CUT-OFF WHEEL	1	102.0	0.0
1493	BACK. ONLY CONTR.	0	98.0	0.0
1118	PN DISC GRINDER	2	98.0	1.41
1195	SPIRALBLAST	1	98.0	0.0
1387	SANDSLINGER	1	98.0	0.0
1485	BACK/SHAKEOUT	1	98.0	0.0
1491	SHAKEOUT CONVEYOR	1	98.0	0.0
1373	SANDMULLER	1	96.0	0.0
1119	PN CONE GRINDER	3	95.7	1.53
1336	SHELL MOLDER	1	94.0	0.0
1450	SHELL CORE	1	94.0	0.0
1120	PN WHEEL GRINDER	1	93.0	0.0
1396	EXHAUST FAN	1	93.0	0.0
1512	SHING GRINDER	1	93.0	0.0
1337	HI-PRESS. MOLDER	1	92.0	0.0
1517	STAND STONE GRIND	1	91.0	0.0
1146	PN TAMPER	1	90.0	0.0
1499	WHEELABRATOR	1	89.0	0.0
1511	BACK/ELEC GRINDER	1	88.0	0.0
1395	BACK/EXHAUST FAN	1	87.0	0.0
1438	INDUCT. FURNACE	1	87.0	0.0
1136	BACK/PN CHISEL	2	85.0	0.0
1159	BACK/HLD/BRN/GOUG	2	85.0	0.0
1334	BACK/MOLDERS	1	85.0	0.0
1435	BACK/FURNACE	2	85.0	0.0
1506	BACK/CUTOFF WHEEL	2	85.0	0.0
1340	MOLDER-PACEMAKER	1	82.0	0.0
1452	CORE OVEN	1	82.0	0.0
1449	BACK/CORE EQUIP	1	78.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332 PLANT NO. = 3 NO DATES SPECIFIC

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1505	CUT-OFF WHEEL	1	102.0	0.0
1158	WELD/BURN/GOUGING	1	102.0	0.0
1135	PNEUMATIC CHISEL	1	102.0	0.0
1484	SHAKEOUT/DUMPOUT	2	101.5	0.0
1385	SANDSLINGER	1	98.0	0.0
1187	ABRASIVE BLASTING	1	98.0	0.0
1392	HYDRAULIC PUMP	1	96.0	0.0
1371	MULLER	1	96.0	0.0
1103	PNEUMATIC GRINDER	6	96.0	1.44
1434	FURNACE	2	94.5	0.0
1510	ELECTRIC GRINDERS	3	90.7	0.0
1394	EXHAUST FAN	2	90.0	0.0
1144	PNEUMATIC TAMPER	1	90.0	0.0
1333	MOLDER	3	89.3	0.0
1497	WHEELABRATOR	1	89.0	0.0
1448	CURE OVEN	2	88.0	0.0

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 3

DATE: 1979

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING		EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
505	CUT-OFF WHEEL OPER	2	1507	60.0	1506	30.0	1395	10.0
467	WHELLEBRATOR OPER	2	1494	60.0	1506	40.0	0	0.0
443	SHAKEOUT TABLE OPER	2	1494	40.0	1435	20.0	1435	40.0
433	COKE ROOM WORKER	17	1452	30.0	1449	70.0	0	0.0
421	SHELL COKE OPERATOR	4	1450	50.0	1159	50.0	0	0.0
405	SPIRALBLAST OPERATOR	1	1495	40.0	1435	30.0	1435	30.0
395	SANDSLINGER OPERATOR	2	1367	15.0	1130	30.0	1485	40.0
			1494	15.0	0	0.0	0	0.0
388	SANDMULLER OPERATOR	1	1373	80.0	1130	10.0	1491	10.0
367	PULVER	4	1437	40.0	1435	40.0	1405	20.0
350	MULD WASH WORKER	1	1337	20.0	1491	20.0	1130	60.0
342	PACEMAKER MULD OPER	1	1340	40.0	1435	20.0	1405	40.0
338	SHELLMULDER OPERATOR	4	1336	50.0	1506	50.0	0	0.0
337	M1 PRESS. MULDER OP	2	1337	60.0	1506	20.0	1146	5.0
			1392	5.0	1491	10.0	0	0.0
327	INDUCT. FURNACE OPER	2	1438	60.0	1159	40.0	0	0.0
326	ARC FURNACE OPERATOR	1	1437	80.0	1435	20.0	0	0.0
302	ARC-AIR OPERATOR	0	1160	50.0	1159	40.0	1395	10.0
281	STAND STONE GRINDER	2	1517	60.0	1511	30.0	1395	10.0
279	SWING GRINDER OPER	3	1512	70.0	1511	30.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSH JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 3

DATE: 1979

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT CODE TIME	USING CODE TIME	EQUIPMENT CODE TIME	CODE TIME
276	PN CONE GRINDER OPER	3	1119 50.0	1500 40.0	1395 10.0	
277	PN DISC GRINDER OPER	4	1118 50.0	1500 40.0	1395 10.0	
275	PN GRINDER OPER	6	1120 50.0	1500 40.0	1395 10.0	

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 3		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
50500	CUT-OFF WHEEL OPER	2	1507	4.0	0.0
			1506	2.4	0.0
			1395	0.8	0.0
46700	WHELLDRATOR OPER	2	1494	4.8	0.0
			1506	3.2	0.0
44300	SHAKEOUT TABLE OPER	2	1494	3.2	0.0
			1485	1.6	0.0
			1435	3.2	0.0
43300	CURE ROOM WORKER	17	1452	2.4	0.0
			1444	3.6	0.0
42100	SHELL CURE OPERATOR	4	1450	4.0	0.0
			1154	4.0	0.0
40500	SPIRALBLAST OPERATOR	1	1195	3.2	0.0
			1435	2.4	0.0
			1485	2.4	0.0
39500	SANDSLINGER OPERATOR	2	1387	1.2	0.0
			1150	2.4	0.0
			1485	3.2	0.0
			1444	1.2	0.0
38800	SANDMULLER OPERATOR	1	1373	0.4	0.0
			1130	0.8	0.0
			1441	0.8	0.0
36700	PUURER	4	1437	3.2	0.0
			1435	3.2	0.0
			1485	1.6	0.0
35000	MULD WASH WORKER	1	1337	1.6	0.0
			1441	1.6	0.0
			1130	4.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

FORM JOB NO. 9833

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
34200	PACEMAKER MULK DPER	1	1340	3.2	0.0
			1435	1.0	0.0
			1485	3.2	0.0
33600	SHELLMULDER OPERATOR	4	1336	4.0	0.0
			1506	4.0	0.0
33700	MI PRESS. MOLDER UP	2	1337	4.0	0.0
			1506	1.0	0.0
			1146	0.4	0.0
			1392	0.4	0.0
			1491	0.0	0.0
32700	INDUCT. FURNACE OPER	2	1436	4.0	0.0
			1159	3.2	0.0
32600	ARC FURNACE OPERATOR	1	1437	0.4	0.0
			1435	1.0	0.0
30200	ARC-AIR OPERATOR	6	1100	4.0	0.0
			1159	3.2	0.0
			1345	0.0	0.0
28100	STAND STONE GRINDER	2	1517	4.0	0.0
			1511	2.4	0.0
			1395	0.0	0.0
27900	SWING GRINDER OPER	3	1512	3.0	0.0
			1511	2.4	0.0
27800	PN CONE GRINDER OPER	3	1119	4.0	0.0
			1506	3.2	0.0
			1395	0.0	0.0
27700	PN DISC GRINDER OPER	4	1118	4.0	0.0
			1506	3.2	0.0
			1395	0.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SDM JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
27500	PM GRINDER OPER	6	1120	4.0	0.0
			1506	3.2	0.0
			1395	0.8	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 4

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9835

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 4

DATE: 1979

EQUIP. CODE	GENERIC NAME	LEW UBA
1517	STAND STONE GRIND	90.0
1517	STAND STONE GRIND	90.0
1513	WHEEL GRINDER	102.0
1507	CUT-OFF WHEEL	97.0
1507	CUT-OFF WHEEL	98.0
1486	SHAKEOUT	91.0
1450	SHELL CUKE	90.0
1438	INDUCT. FURNACE	90.0
1438	INDUCT. FURNACE	90.0
1397	EXHAUST FAN	92.0
1374	MULLER	90.0
1374	MULLER	94.0
1338	SQUEZ/JULT MOLDER	90.0
1338	SQUEZ/JULT MOLDER	97.0
1335	AUTO-MOLDER	97.0
1194	RUTUPLAST	93.0
1194	RUTUPLAST	90.0
1117	PN DRILL GRINDER	91.0

ENVIRONMENTAL PROTECTION AGENCY

DBN 560 NO. 9000

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 4

DATE: 1979

BACK. CODE	GENERAL NAME	LEQ DBA	EQUIPMENT CODE	CONTRIBUTION CONTR.	TO BACKGROUND CODE	CONTR.	CONTR.
1511	BACK/ELEC GRINDER	88.0	1513	0.50	1507	0.30	1517 0.20
1511	BACK/ELEC GRINDER	88.0	1513	1.00	0	0.0	0 0.0
1506	BACK/CUTOFF WHEEL	88.0	1507	1.00	0	0.0	0 0.0
1506	BACK/CUTOFF WHEEL	88.0	1507	0.60	1117	0.20	1517 0.20
1485	BACK/SHAKEOUT	87.0	1338	0.40	1458	0.40	1335 0.20
1449	BACK/COKE EQUIP	87.0	1450	0.60	1452	0.40	0 0.0
1435	BACK/FURNACE	87.0	1437	1.00	0	0.0	0 0.0
1395	BACK/EXHAUST FAN	87.0	1338	0.30	1397	0.50	1438 0.20
1372	BACK/MULLER	87.0	1450	0.50	1374	0.50	0 0.0
1372	BACK/MULLER	87.0	1450	0.40	1374	0.60	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1513	WHEEL GRINDER	1	102.0	0.0
1507	CUT-OFF WHEEL	2	97.5	0.71
1335	AUTO-HOLDER	1	97.0	0.0
1338	SQUEZ/JOLT MULDER	2	96.5	0.71
1450	SHELL CORE	1	96.0	0.0
1517	STAND STONE GRIND	2	92.5	3.54
1374	MULLER	2	92.0	2.83
1397	EXHAUST FAN	1	92.0	0.0
1194	ROTOBLAST	2	91.5	2.12
1117	PH DRILL GRINDER	1	91.0	0.0
1486	SHAKEOUT	1	91.0	0.0
1438	INDUCT. FURNACE	2	90.0	0.0
1506	BACK/CUTOFF WHEEL	2	88.0	0.0
1511	BACK/ELEC GRINDER	2	88.0	0.0
1437	BACK. ONLY CONTR.	1	87.0	0.0
1372	BACK/MULLER	2	87.0	0.0
1395	BACK/EXHAUST FAN	1	87.0	0.0
1435	BACK/FURNACE	1	87.0	0.0
1449	BACK/CORE EQUIP	1	87.0	0.0
1485	BACK/SHAKEOUT	1	87.0	0.0
1452	BACK. ONLY CONTR.	1	83.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 960

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1505	CUT-OFF WHEEL	2	97.5	0.71
1333	MULDER	3	96.7	0.71
1510	ELECTRIC GRINDERS	3	95.7	3.54
1394	EXHAUST FAN	1	92.0	0.0
1371	MULLER	2	92.0	2.83
1187	ABRASIVE BLASTING	2	91.5	2.12
1484	SHAKEOUT/DUMPOUT	1	91.0	0.0
1103	PNEUMATIC GRINDER	1	91.0	0.0
1448	CORE OVEN	2	89.5	0.0
1434	FURNACE	3	89.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DOM JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 4

DATE: 1974

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT		CODE		TIME	
			CODE	TIME	CODE	TIME	CODE	TIME
505	CUT-OFF WHEEL OPER	2	1507	70.0	1372	30.0	0	0.0
440	SHAKEOUT OPERATOR	8	1486	50.0	1372	20.0	1395	30.0
421	SHELL CORE OPERATOR	8	1450	70.0	1372	30.0	0	0.0
402	ROTUBLAST OPERATOR	2	1194	50.0	1372	30.0	0	20.0
385	MULLER OPER	1	1374	50.0	1372	20.0	1395	30.0
368	MELTER/PUCKER	8	1436	50.0	1372	20.0	1395	30.0
340	SQUEZ/JOLT MULLER OP	7	1336	70.0	1372	30.0	0	0.0
339	AUTO-MULLER OPERATOR	2	1335	80.0	1372	20.0	0	0.0
281	STAND STONE GRINDER	5	1517	40.0	1372	20.0	1117	40.0
260	WHEEL GRINDER OPER	5	1513	40.0	1372	20.0	1117	40.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9633

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 4		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
30500	CUT-OFF WHEEL OPER	2	1507	2.6	0.0
			1372	2.4	0.0
44000	SHAKEOUT OPERATOR	8	1486	4.0	0.0
			1372	1.0	0.0
			1395	2.4	0.0
42100	SHELL CORE OPERATOR	8	1450	2.6	0.0
			1372	2.4	0.0
40200	ROTOBLAST OPERATOR	2	1194	4.0	0.0
			1372	2.4	0.0
38500	MULLER OPER	1	1374	4.0	0.0
			1372	1.0	0.0
			1395	2.4	0.0
36800	MELTER/POURER	6	1438	4.0	0.0
			1372	1.0	0.0
			1395	2.4	0.0
34000.	SQUEZ/JULI MOLDER OP	7	1338	2.0	0.0
			1372	2.4	0.0
33900	AUTO-MOLDER OPERATOR	2	1335	6.4	0.0
			1372	1.0	0.0
28100	STAND STONE GRINDER	5	1517	3.2	0.0
			1372	1.0	0.0
			1117	3.2	0.0
28000	WHEEL GRINDER OPER	5	1513	3.2	0.0
			1372	1.0	0.0
			1117	3.2	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 5

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9635

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NOS: 5

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEU USA
1802	FORKLIFT	03.0
1542	COMPRESSED AIR	105.0
1542	COMPRESSED AIR	04.0
1542	COMPRESSED AIR	42.0
1535	VENTILATION	03.0
1517	STAND STONE GRIND	09.0
1512	SWING GRINDER	43.7
1509	TABUR CUT-OFF WHL	45.0
1508	CUT-OFF WHEEL	100.0
1499	WHEELABRATOR	00.0
1499	WHEELABRATOR	09.0
1492	SHAKEOUT TABLE	102.0
1492	SHAKEOUT TABLE	40.0
1482	PN VIBRATOR	40.0
1477	HUIST	44.0
1471	BALK/OVERHD CRANE	70.0
1453	FLEXIBLU COKE MKR	40.0
1443	LAULE PRE-HEAT	00.0
1443	LAULE PRE-HEAT	05.0
1443	LAULE PRE-HEAT	45.0
1442	FURNACE	00.0
1438	INDUCT. FURNACE	00.0
1437	ARC FURNACE	103.0
1437	ARC FURNACE	40.0
1387	SANDSLINGER	40.0
1375	SAND HUPPER/VIB	100.0
1375	SAND HUPPER/VIB	47.0
1375	SAND HUPPER/VIB	100.0
1375	SAND HUPPER/VIB	47.0
1375	SAND HUPPER/VIB	44.0
1341	MULMASTER	104.0
1341	MULMASTER	100.0
1341	MULMASTER	49.0
1338	SQUEEZ/JOLT MOLDER	110.0
1338	SQUEEZ/JOLT MOLDER	110.0
1338	SQUEEZ/JOLT MOLDER	104.0
1338	SHELL MOLDER	41.0
1338	SHELL MOLDER	40.0
1194	ROTUBLAST	47.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9037

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 5

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEO CBA
1194	RDTUBLAST	92.0
1193	ABRASIVE BLAST	92.0
1189	ABRASIVE BLAST	95.0
1166	WELDING/ARC	83.0
1160	ARC AIR GOUGERS	100.0
1160	ARC AIR GOUGERS	105.0
1160	ARC AIR GOUGERS	114.0
1160	ARC AIR GOUGERS	100.0
1159	BACK/WLD/BKN/GOUG	57.0
1140	PN TAMPER	102.0
1140	PN TAMPER	100.0
1137	PN CHISEL	97.0
1137	PN CHISEL	99.0
1137	PN CHISEL	117.0
1120	PN WHEEL GRINDER	98.0
1120	PN WHEEL GRINDER	98.0
1120	PN WHEEL GRINDER	91.0
1120	PN WHEEL GRINDER	95.0
1120	PN WHEEL GRINDER	101.0
1120	PN WHEEL GRINDER	92.0
1120	PN WHEEL GRINDER	90.0
1120	PN WHEEL GRINDER	93.0
1119	PN CONE GRINDER	92.0
1119	PN CONE GRINDER	93.0
1119	PN CONE GRINDER	95.0
1119	PN CONE GRINDER	94.0
1110	PN DISC GRINDER	103.0
1110	PN DISC GRINDER	98.0
1110	PN DISC GRINDER	98.0
1117	PN DRILL GRINDER	95.0
1117	PN DRILL GRINDER	98.0
1117	PN DRILL GRINDER	95.0
1117	PN DRILL GRINDER	92.0

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 5

DATE: 1980

BACK. CODE	GENERAL NAME	LEG LBA	EQUIPMENT CODE	CONTRIBUTION TO CONTR.	BACK. CODE	CONTRIBUTION TO CONTR.	BACK. CODE	CONTRIBUTION TO CONTR.
1551	BACK/EXHAUST FAN	87.0	1552	0.70	1336	0.30	0	0.0
1543	BACK/COMPRES AIR	89.0	1542	0.60	1120	0.40	0	0.0
1536	BACK/VENTILATION	81.0	1535	1.00	0	0.0	0	0.0
1536	BACK/VENTILATION	80.0	1535	1.00	0	0.0	0	0.0
1536	BACK/VENTILATION	84.0	1535	0.80	1307	0.20	0	0.0
1536	BACK/VENTILATION	84.0	1535	0.90	1120	0.10	0	0.0
1536	BACK/VENTILATION	84.0	1535	0.60	1118	0.20	1117	0.20
1536	BACK/VENTILATION	82.0	1535	0.60	1119	0.20	1120	0.20
1536	BACK/VENTILATION	83.0	1438	0.30	1535	0.70	0	0.0
1498	BACK/WHEELABRATOR	85.0	1499	0.60	1307	0.20	0	0.0
1498	BACK/WHEELABRATOR	86.0	1499	1.00	0	0.0	0	0.0
1485	BACK/SHAKEOUT	91.0	1492	0.70	1200	0.30	0	0.0
1481	BACK/PN VIBRATOR	76.0	1482	0.70	1336	0.30	0	0.0
1435	BACK/FURNACE	83.0	1433	1.00	0	0.0	0	0.0
1435	BACK/FURNACE	84.0	1442	1.00	0	0.0	0	0.0
1435	BACK/FURNACE	85.0	1437	0.60	1443	0.20	0	0.0
1435	BACK/FURNACE	84.0	1437	1.00	0	0.0	0	0.0
1435	BACK/FURNACE	85.0	1437	1.00	0	0.0	0	0.0
1435	BACK/FURNACE	86.0	1437	0.20	1443	0.60	0	0.0
1435	BACK/FURNACE	90.0	1443	1.00	0	0.0	0	0.0
1386	BACK/SANDSLINGER	82.0	1499	0.50	1307	0.50	0	0.0
1386	BACK/SANDSLINGER	86.0	1387	1.00	0	0.0	0	0.0
1386	BACK/SANDSLINGER	92.0	1387	1.00	0	0.0	0	0.0
1334	BACK/MULDERS	82.0	1336	0.70	1402	0.30	0	0.0
1168	BACK/ABRASV BLAST	85.0	1194	0.50	1102	0.30	1160	0.20
1102	BACK/FIN/GRINDERS	84.0	1119	0.40	1117	0.40	1512	0.20
1102	BACK/FIN/GRINDERS	83.0	1517	0.40	1508	0.40	1166	0.20
1102	BACK/FIN/GRINDERS	82.0	1120	0.40	1118	0.30	1160	0.30

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DbA)	STD. DEV.
1338	SQUEZ/JOLT MOLDER	3	110.7	7.02
1160	ARC AIR GOUGERS	4	107.8	4.19
1137	PN CHISEL	3	104.3	11.02
1146	PN TAMPER	2	101.0	1.41
1341	MOLDMASTER	3	101.0	2.65
1492	SHAKEOUT TABLE	2	100.0	2.63
1508	CUT-OFF WHEEL	1	100.0	0.0
1437	ARC FURNACE	2	99.5	4.95
1118	PN DISC GRINDER	3	99.0	3.61
1387	SANDSLINGER	1	98.0	0.0
1453	FLEXIBLD CORE MKR	1	98.0	0.0
1375	SAND HOPPER/VIB	5	97.8	2.51
1482	PN VIBRATOR	1	96.0	0.0
1542	COMPRESSED AIR	3	95.3	8.50
1120	PN WHEEL GRINDER	8	95.3	3.0
1189	ABRASIVE BLAST	1	95.0	0.0
1509	TABOR CUT-OFF WHL	1	95.0	0.0
1194	KUTUBLAST	2	94.5	3.54
1117	PN DRILL GRINDER	4	94.0	1.83
1477	MOIST	1	94.0	0.0
1512	SHING GRINDER	1	93.7	0.0
1119	PN CONE GRINDER	4	93.5	1.29
1336	SHELL MOLDER	2	93.5	3.54
1193	ABRASIVE BLAST	1	92.0	0.0
1485	BACK/SHAKEOUT	1	91.0	0.0
1471	BACK/OVERHD CRANE	1	90.0	0.0
1443	LADLE PRE-HEAT	3	89.3	5.13
1517	STAND STONE GRIND	1	89.0	0.0
1543	BACK/COMPRSD AIR	1	89.0	0.0
1159	BACK/WLD/BRN/GOUG	1	87.8	0.0
1499	WHEELABRATOR	2	87.5	2.12
1386	BACK/SANDSLINGER	3	87.3	5.03
1551	BACK/EXHAUST FAN	1	87.0	0.0
1435	BACK/FURNACE	7	86.0	2.58
1438	INDUCT. FURNACE	1	86.0	0.0
1442	FURNACE	1	86.0	0.0
1498	BACK/WHEELABRATOR	2	85.5	0.71
1552	BACK. ONLY CONTR.	0	85.5	0.0
1188	BACK/ABRASV BLAST	1	85.0	0.0
1536	BACK/VENTILATION	7	83.3	2.93

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN _EQ(DBA)	STD. DEV.
1102	BACK/FIN/GRINDERS	3	83.0	1.00
1166	WELDING/ARC	1	83.0	0.0
1535	VENTILATION	1	83.0	0.0
1802	FORKLIFT	1	83.0	0.0
1334	BACK/HOLDERS	1	82.0	0.0
1481	BACK/PN VIBRATOR	1	78.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1135	PNEUMATIC CHISEL	3	104.3	11.02
1333	HOLDER	8	102.7	5.00
1144	PNEUMATIC TAMPER	2	101.0	1.41
1158	WELD/BURN/GOUGING	6	100.3	4.19
1484	SHAKEOUT/DUMPOUT	2	100.0	2.83
1448	CORE OVEN	1	98.0	0.0
1385	SANDSLINGER	1	98.0	0.0
1371	MULLER	5	97.6	2.51
1505	CUT-OFF WHEEL	2	97.5	0.0
1480	PNEUMATIC VIBRATOR	1	96.0	0.0
1103	PNEUMATIC GRINDER	19	95.2	2.93
1187	ABRASIVE BLASTING	4	94.0	3.54
1460	LATHE	2	92.0	0.0
1510	ELECTRIC GRINDERS	2	91.3	0.0
1434	FURNACE	7	91.3	5.0
1497	WHEELABRATOR	2	87.5	2.22

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 7659

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 5

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING EQUIPMENT CODE		TIME SPENT USING EQUIPMENT CODE		TIME SPENT USING EQUIPMENT CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
534	PRESS OPERATOR	2	1102	100.0	0	0.0	0	0.0
534	PRESS OPERATOR	4	1102	100.0	0	0.0	0	0.0
506	TABUR CUT-OFF SAW OP	2	1509	80.0	1102	20.0	0	0.0
505	CUT-OFF WHEEL OPER	2	1508	80.0	1102	20.0	0	0.0
480	OVERHEAD CRANE OPER	2	1471	100.0	0	0.0	0	0.0
480	OVERHEAD CRANE OPER	2	1471	50.0	1435	50.0	0	0.0
480	OVERHEAD CRANE OPER	2	1471	40.0	1386	50.0	1485	10.0
480	OVERHEAD CRANE OPER	2	1471	30.0	1102	40.0	1188	30.0
467	WHELLDRATOR OPER	4	1494	85.0	1102	15.0	0	0.0
461	INSPECTOR	2	1102	70.0	1000	20.0	1159	10.0
443	SHAKEOUT TABLE OPER	4	1442	75.0	1485	25.0	0	0.0
404	MACHINE BLASTER	4	1493	75.0	1188	25.0	0	0.0
403	HAND BLASTER	2	1484	50.0	1188	25.0	1102	25.0
402	ROTOBLAST OPERATOR	2	1194	75.0	1188	25.0	0	0.0
402	ROTOBLAST OPERATOR	2	1194	85.0	1102	15.0	0	0.0
367	POURER	6	1435	40.0	1485	30.0	1536	15.0
			1354	10.0	1461	5.0	0	0.0
343	MULDMASTER OPERATOR	6	1541	35.0	1375	35.0	1536	30.0
341	FLOOR MULDER	2	1435	100.0	0	0.0	0	0.0
341	FLOOR MULDER	4	1500	80.0	1485	15.0	1471	5.0

ENVIRONMENTAL PROTECTION AGENCY

888 JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332		PLANT NO: 5		DATE: 1989				
JOB CODE	JOB DESCRIPTION	NO OF PERKS.	TIME CODE	SPENT TIME	USING EQUIPMENT CODE	TIME	EQUIPMENT CODE	TIME
341	FLOOR HOLDER	4	1146	30.0	1386	40.0	1485	30.0
341	FLOOR HOLDER	4	1146	30.0	1435	70.0	0	0.0
331	LADLE SKIMMER	2	1485	50.0	1536	20.0	1435	20.0
			1334	5.0	1461	5.0	0	0.0
331	LADLE SKIMMER	2	1435	30.0	1386	30.0	1536	30.0
			1334	5.0	1461	5.0	0	0.0
330	LADLE PRE-HEATER	2	1435	90.0	1435	10.0	0	0.0
330	LADLE PRE-HEATER	2	1435	80.0	1137	20.0	0	0.0
330	LADLE PRE-HEATER	2	1435	100.0	0	0.0	0	0.0
326	ARC FURNACE OPERATOR	4	1437	70.0	1435	30.0	0	0.0
319	POWDER BURNER	2	1160	65.0	1102	35.0	0	0.0
318	GAS BURNER	2	1160	65.0	1102	35.0	0	0.0
310	ARC AIR GUGGER	2	1160	50.0	1159	30.0	1102	20.0
310	ARC AIR GUGGER	2	1160	70.0	1159	30.0	0	0.0
310	ARC AIR GUGGER	4	1160	70.0	1102	30.0	0	0.0
310	ARC AIR GUGGER	2	1160	80.0	1517	20.0	0	0.0
303	ARC WELDER/A	10	1166	70.0	1159	20.0	1160	10.0
303	ARC WELDER/A	4	1166	60.0	1159	15.0	1102	5.0
303	ARC WELDER/A	2	1166	70.0	1159	30.0	0	0.0
303	ARC WELDER/A	10	1166	60.0	1102	25.0	1160	15.0

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 5

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
261	STAND STONE GRINDER	10	1517	80.0	1102	20.0	0	0.0
279	SWING GRINDER OPER	4	1512	80.0	1102	20.0	0	0.0
275	PN GRINDER OPER	22	1120	15.0	1119	15.0	1118	15.0
			1117	15.0	1102	40.0	0	0.0
275	PN GRINDER OPER	4	1120	20.0	1119	5.0	1118	5.0
			1117	5.0	1102	65.0	0	0.0
275	PN GRINDER OPER	12	1120	20.0	1119	20.0	1118	15.0
			1117	15.0	1102	30.0	0	0.0
275	PN GRINDER OPER	24	1102	50.0	1117	10.0	1118	10.0
			1119	10.0	1120	20.0	0	0.0
266	HELPER	6	1386	90.0	1465	10.0	0	0.0
265	LABORER	2	1435	100.0	0	0.0	0	0.0
265	LABORER	2	1435	50.0	1102	10.0	1536	10.0
			1465	10.0	1386	20.0	0	0.0
265	LABORER	2	1000	100.0	0	0.0	0	0.0
264	SERVICEMAN	2	1188	50.0	1102	50.0	0	0.0
264	SERVICEMAN	2	1102	50.0	1188	15.0	1159	25.0
			1000	10.0	0	0.0	0	0.0
264	SERVICEMAN	4	1193	75.0	1100	25.0	0	0.0
264	SERVICEMAN	2	1102	20.0	1334	40.0	1536	40.0
264	SERVICEMAN	2	1386	60.0	1536	40.0	0	0.0
264	SERVICEMAN	2	1102	50.0	1159	50.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 5

DATE: 1960

JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME CODE	SPENT TIME	USING CODE	EQUIPMENT TIME	CODE	TIME
264	SERVICEMAN	4	1102	30.0	1159	30.0	1194	40.0
264	SERVICEMAN	2	1000	40.0	1386	30.0	1536	30.0
264	SERVICEMAN	2	1000	40.0	1334	20.0	1536	20.0
			1481	10.0	1543	10.0	0	0.0
264	SERVICEMAN	4	1000	25.0	1334	25.0	1536	45.0
			1481	5.0	0	0.0	0	0.0
264	SERVICEMAN	2	1435	100.0	0	0.0	0	0.0
203	MUKKSAVER OPERATOR	6	1188	20.0	1102	60.0	1159	20.0
202	FORKLIFT OPERATOR	2	1000	25.0	1405	30.0	1496	25.0
			1502	20.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	2	1000	90.0	1435	10.0	0	0.0
202	FORKLIFT OPERATOR	2	1000	40.0	1435	10.0	1536	10.0
			1334	10.0	1341	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NO. MEAN TIME-ORHS	NO. STD. DEVIATION
53400	PRESS OPERATOR	6	1102	0.0	0.0
50600	TABOR CUT-OFF SAW OP	2	1509 1102	6.4 1.6	0.0 0.0
50500	CUT-OFF WHEEL OPER	2	1506 1102	6.4 1.6	0.0 0.0
48003	OVERHEAD CRANE OPER	2	1471 1102 1186	2.4 3.2 2.4	0.0 0.0 0.0
48002	OVERHEAD CRANE OPER	2	1471 1386 1465	3.2 4.0 0.6	0.0 0.0 0.0
48001	OVERHEAD CRANE OPER	2	1471 1435	4.0 4.0	0.0 0.0
48000	OVERHEAD CRANE OPER	2	1471	8.0	0.0
46700	WHEELBRATOR OPER	4	1499 1102	0.6 1.2	0.0 0.0
46100	INSPECTOR	2	1102 1000 1159	3.6 1.6 0.8	0.0 0.0 0.0
44300	SHAKEOUT TABLE OPER	4	1492 1465	6.0 2.0	0.0 0.0
40400	MACHINE BLASTER	4	1193 1186	6.0 2.0	0.0 0.0
40300	HAND BLASTER	2	1184 1186 1102	4.0 2.0 2.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9633

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 2		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	HR. MEAN TIME-DAYS	HR. STD. DEVIATION
40201	ROTUBLAST OPERATOR	2	1194	0.8	0.0
			1102	1.2	0.0
40200	ROTUBLAST OPERATOR	2	1194	0.0	0.0
			1100	2.0	0.0
36700	PLOORER	8	1433	3.2	0.0
			1405	2.4	0.0
			1530	1.2	0.0
			1314	0.8	0.0
			1401	3.4	0.0
34300	MULDMASTER OPERATOR	6	1341	2.8	0.0
			1373	2.0	0.0
			1530	2.4	0.0
34103	FLOOR MOLDER	4	1190	2.4	0.0
			1433	3.0	0.0
34102	FLOOR MOLDER	4	1140	2.4	0.0
			1300	3.2	0.0
			1405	2.4	0.0
34101	FLOOR MOLDER	4	1350	0.4	0.0
			1405	1.2	0.0
			1471	0.4	0.0
34100	FLOOR MOLDER	2	1433	3.0	0.0
33101	LADLE SKIMMER	2	1433	2.4	0.0
			1300	2.4	0.0
			1530	2.4	0.0
			1334	0.4	0.0
			1401	0.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
33100	LADLE SKIMMER	2	1485	4.0	0.0
			1536	1.6	0.0
			1435	1.6	0.0
			1334	0.4	0.0
			1481	0.4	0.0
33002	LADLE PRE-HEATER	2	1435	0.0	0.0
33001	LADLE PRE-HEATER	2	1435	0.4	0.0
			1137	1.6	0.0
33000	LADLE PRE-HEATER	2	1435	7.2	0.0
			1485	0.6	0.0
32600	ARC FURNACE OPERATOR	4	1437	5.6	0.0
			1435	2.4	0.0
31900	POUNDER BURNER	2	1160	5.2	0.0
			1102	2.0	0.0
31800	GAS BURNER	2	1160	5.2	0.0
			1102	2.0	0.0
31003	ARC AIR GUGGER	2	1160	0.4	0.0
			1517	1.6	0.0
31002	ARC AIR GUGGER	4	1160	5.6	0.0
			1102	2.4	0.0
31001	ARC AIR GUGGER	2	1160	5.6	0.0
			1154	2.4	0.0
31000	ARC AIR GUGGER	2	1160	4.0	0.0
			1154	2.4	0.0
			1102	1.6	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352		PLANT NO. = 5		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
30303	ARC WELDER/A	10	1100	4.0	0.0
			1102	2.0	0.0
			1100	1.2	0.0
30302	ARC WELDER/A	2	1100	3.0	0.0
			1159	2.4	0.0
30301	ARC WELDER/A	4	1100	0.4	0.0
			1159	1.2	0.0
			1102	0.4	0.0
30300	ARC WELDER/A	10	1100	3.0	0.0
			1159	1.6	0.0
			1100	0.8	0.0
20100	STAND STONE GRINDER	10	1517	0.4	0.0
			1102	1.0	0.0
27900	SHING GRINDER OPER	4	1512	0.4	0.0
			1102	1.0	0.0
27500	PN GRINDER OPER	02	1120	1.5	0.19
			1119	1.1	0.33
			1115	1.0	0.25
			1117	1.0	0.25
			1102	3.5	0.75
20600	HELPER	6	1300	7.2	0.0
			1405	0.0	0.0
20502	LABORER	2	1000	3.0	0.0
20501	LABORER	2	1435	4.0	0.0
			1102	0.0	0.0
			1530	0.0	0.0
			1485	0.0	0.0
			1300	1.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9639

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
26500	LABORER	2	1439	8.0	0.0
26410	SERVICEMAN	2	1439	8.0	0.0
26409	SERVICEMAN	4	1000	2.0	0.0
			1334	2.0	0.0
			1536	3.6	0.0
			1481	0.4	0.0
26406	SERVICEMAN	2	1000	3.2	0.0
			1334	1.0	0.0
			1536	1.0	0.0
			1481	0.0	0.0
			1543	0.0	0.0
26407	SERVICEMAN	2	1000	3.2	0.0
			1336	2.4	0.0
			1536	2.4	0.0
26406	SERVICEMAN	4	1102	2.4	0.0
			1154	2.4	0.0
			1194	3.2	0.0
26405	SERVICEMAN	2	1102	4.0	0.0
			1154	4.0	0.0
26404	SERVICEMAN	2	1386	4.0	0.0
			1536	3.2	0.0
26403	SERVICEMAN	2	1102	1.6	0.0
			1334	3.2	0.0
			1536	3.2	0.0
26402	SERVICEMAN	4	1143	0.0	0.0
			1188	2.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-ORMS	NO. STD. DEVIATION
26401	SERVICEMAN	2	1102	4.0	0.0
			1188	1.2	0.0
			1159	2.0	0.0
			1000	0.0	0.0
26400	SERVICEMAN	2	1188	4.0	0.0
			1102	4.0	0.0
20300	WORKSHEET OPERATOR	6	1188	1.6	0.0
			1102	4.0	0.0
			1159	1.0	0.0
20202	FORKLIFT OPERATOR	2	1000	3.2	0.0
			1435	0.0	0.0
			2530	0.4	0.0
			1334	3.6	0.0
			1341	0.0	0.0
20201	FORKLIFT OPERATOR	2	1000	7.2	0.0
			1435	0.0	0.0
20200	FORKLIFT OPERATOR	2	1000	2.0	0.0
			1435	2.4	0.0
			1448	2.0	0.0
			1502	1.0	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9535

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 6

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEG JBA
1517	STAND STONE GRIND	30.0
1517	STAND STONE GRIND	41.0
1499	WHEELABRATOR	40.2
1483	PN VIBRATOR	105.0
1482	PN VIBRATOR	48.0
1440	FURNACE	86.0
1373	SANDMULLER	75.0
1339	MULDER	41.0
1330	SQUEZ/JOLT HOLDER	40.0
1330	SQUEZ/JOLT HOLDER	47.0
1330	SQUEZ/JOLT HOLDER	42.0
1330	SQUEZ/JOLT HOLDER	103.0
1194	RUTOBLAST	42.0
1175	WELD/ACETYLENE	80.0
1140	PN TAMPER	43.0
1140	PN TAMPER	42.0
1140	PN TAMPER	42.0
1120	PN WHEEL GRINDER	45.0
1120	PN WHEEL GRINDER	45.0
1120	PN WHEEL GRINDER	46.0
1120	PN WHEEL GRINDER	44.0
1120	PN WHEEL GRINDER	45.0
1120	PN WHEEL GRINDER	48.0
1119	PN CUNE GRINDER	45.0
1119	PN CUNE GRINDER	45.0

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEW) GENERALIZED

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1480	PNEUMATIC VIBRATOR	2	101.5	0.0
1333	MULDER	5	95.8	4.55
1103	PNEUMATIC GRINDER	8	95.8	1.57
1144	PNEUMATIC TAMPER	3	92.3	0.58
1187	ABRASIVE BLASTING	1	92.0	0.0
1510	ELECTRIC GRINDERS	3	90.3	2.08
1497	WHEELABRATOR	1	90.2	0.0
1434	FURNACE	1	86.0	0.0
1158	WELD/BURN/GOUGING	1	86.0	0.0
1371	MULLER	1	75.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1483	PN VIBRATOR	1	105.0	0.0
1482	PN VIBRATOR	1	98.0	0.0
1338	SQUEZ/JOLT MOLDER	4	97.0	4.55
1120	PN WHEEL GRINDER	6	95.8	1.72
1119	PN CONE GRINDER	2	95.0	0.0
1146	PN TAMPER	3	92.3	0.58
1194	ROTUBLAST	1	92.0	0.0
1339	MOLDER	1	91.0	0.0
1517	STAND STONE GRIND	3	90.3	2.08
1499	MHEELABRATOR	1	90.2	0.0
1104	BACK/PN GRINDER	1	88.0	0.0
1175	WELD/ACETYLENE	1	86.0	0.0
1440	FURNACE	1	86.0	0.0
1372	BACK/MULLER	1	79.0	0.0
1145	BACK/PN TAMPER	1	78.0	0.0
1435	BACK/FURNACE	5	77.0	3.24
1551	BACK/EXHAUST FAN	2	76.0	4.24
1373	SANDMULLER	1	75.0	0.0
1552	BACK. ONLY CONTR.	3	74.1	4.24
1543	BACK/COMPRSD AIR	2	74.0	4.24
1542	BACK. ONLY CONTR.	1	69.0	4.24

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9833

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 6

DATE: 1980

BACK. GENERAL NAME CODE	LEW DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
		CODE	CONTR.	CODE	CONTR.	CODE	CONTR.
1551 BACK/EXHAUST FAN	79.0	1552	0.70	1440	0.30	0	0.0
1551 BACK/EXHAUST FAN	73.0	1552	0.60	1542	0.40	0	0.0
1543 BACK/COMPRESS AIR	77.0	1542	1.00	0	0.0	0	0.0
1543 BACK/COMPRESS AIR	71.0	1542	1.00	0	0.0	0	0.0
1435 BACK/FURNACE	79.0	1440	1.00	0	0.0	0	0.0
1435 BACK/FURNACE	80.0	1440	1.00	0	0.0	0	0.0
1435 BACK/FURNACE	74.0	1440	1.00	0	0.0	0	0.0
1435 BACK/FURNACE	79.0	1440	1.00	0	0.0	0	0.0
1435 BACK/FURNACE	73.0	1440	1.00	0	0.0	0	0.0
1372 BACK/MULLER	79.0	1372	0.40	1552	0.40	1440	0.20
1145 BACK/PN TAMPER	76.0	1145	0.60	1440	0.40	0	0.0
1104 BACK/PN GRINDER	86.0	1517	0.20	1120	0.60	1194	0.20

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 6

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT		USING EQUIPMENT CODE			
			CODE	TIME	CODE	TIME	CODE	TIME
429	OIL-BAKE LUKEMAKER	2	1483	2.0	1551	98.0	0	0.0
422	NU-BAKE COKE OPER	1	1551	100.0	0	0.0	0	0.0
422	NU-BAKE COKE OPER	1	1543	100.0	0	0.0	0	0.0
402	RUTOBLAST OPERATOR	1	1194	15.0	1499	15.0	1104	70.0
385	MULLER OPER	1	1372	10.0	1145	24.0	1435	56.0
			1543	10.0	0	0.0	0	0.0
341	FLOOR MULDER	4	1145	30.0	1435	70.0	0	0.0
340	SQUEZZ/JOLT MULDER UP	2	1146	6.0	1338	4.0	1482	4.0
			1145	20.0	1435	60.0	0	0.0
329	CUPOLA FURNACE OPER	2	1440	70.0	1435	30.0	0	0.0
307	ACETYLENE WELDER	1	1175	15.0	1104	50.0	1000	35.0
275	PN GRINDER OPER	1	1517	50.0	1104	50.0	0	0.0
275	PN GRINDER OPER	3	1114	15.0	1120	35.0	1104	50.0
270	FOREMAN	1	1104	20.0	1175	10.0	1440	20.0
			1435	40.0	1543	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SSN JOB NO. 9030

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 6		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-ORMS	NO. STD. DEVIATION
42900	OIL-BAKE COREMAKER	2	1483	0.2	0.0
			1551	7.8	0.0
42201	NU-BAKE CORE OPER	1	1543	8.0	0.0
42200	NU-BAKE CORE OPER	1	1551	8.0	0.0
40200	AUTOBLAST OPERATOR	1	1194	1.2	0.0
			1494	1.2	0.0
			1104	5.6	0.0
38500	MULLER OPER	1	1372	0.8	0.0
			1145	1.9	0.0
			1435	4.5	0.0
			1543	0.6	0.0
34100	FLOOR MOLDER	4	1145	2.4	0.0
			1435	5.6	0.0
34000	SQUEZ/JOLT MOLDER OP	5	1140	0.5	0.0
			1338	0.5	0.0
			1482	0.3	0.0
			1145	2.1	0.0
			1435	4.8	0.0
32900	CUPOLA FURNACE OPER	2	1440	5.6	0.0
			1435	2.4	0.0
30700	ACETYLENE WELDER	1	1175	1.2	0.0
			1104	4.0	0.0
			1000	2.8	0.0
27501	PM GRINDER OPER	3	1119	1.2	0.0
			1120	2.8	0.0
			1104	4.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
27500	PM GRINDER OPER	1	1517	4.0	0.0
			1104	4.0	0.0
27000	FOREMAN	1	1104	2.0	0.0
			1175	0.0	0.0
			1440	2.0	0.0
			1435	3.2	0.0
			1543	0.0	0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9635

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 7

DATE: 1960

EQUIP. CODE	GENERIC NAME	LEQ DBA
1802	FORKLIFT	88.0
1802	FORKLIFT	88.0
1542	COMPRESSED AIR	44.0
1542	COMPRESSED AIR	44.0
1542	COMPRESSED AIR	44.0
1542	COMPRESSED AIR	42.0
1542	COMPRESSED AIR	47.0
1535	VENTILATION	82.0
1525	HAMMER	42.0
1517	STAND STONE GRIND	48.0
1512	SHING GRINDER	44.0
1512	SHING GRINDER	44.0
1508	CUT-OFF WHEEL	100.0
1508	CUT-OFF WHEEL	100.0
1499	WHEELABRATOR	57.0
1492	SHAKEOUT TABLE	100.0
1492	SHAKEOUT TABLE	102.0
1492	SHAKEOUT TABLE	108.0
1492	SHAKEOUT TABLE	48.0
1486	SHAKEOUT	84.0
1486	SHAKEOUT	43.0
1486	SHAKEOUT	48.0
1457	CORE SET LINE	44.0
1451	NU-BAKE CORE	48.0
1450	SMELL CORE	43.0
1443	LAULE PRE-HEAT	42.0
1443	LAULE PRE-HEAT	40.0
1442	FURNACE	88.0
1438	INDUCT. FURNACE	88.0
1438	INDUCT. FURNACE	48.0
1373	SANDROLLER	42.0
1338	SQUEZ/JOLT MOLDER	48.0
1338	SQUEZ/JOLT MOLDER	45.0
1338	SQUEZ/JOLT MOLDER	103.0
1338	SQUEZ/JOLT MOLDER	103.0
1338	SQUEZ/JOLT MOLDER	100.0
1338	SQUEZ/JOLT MOLDER	45.0
1334	BALK/MOLDERS	84.0
1188	WELDING/ARC	85.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9833

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 7

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEU UBA
1160	WELDING/ARC	79.0
1160	WELDING/ARC	85.0
1160	ARC AIR GOUGERS	100.0
1160	ARC AIR GOUGERS	104.0
1144	PNEUMATIC TAMPER	97.0
1120	PN WHEEL GRINDER	95.0
1119	PN CONE GRINDER	94.0
1119	PN CONE GRINDER	99.0
1119	PN CONE GRINDER	100.0
1119	PN CONE GRINDER	97.0
1119	PN CONE GRINDER	95.0
1110	PN DISC GRINDER	101.0
1110	PN DISC GRINDER	104.0

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 7

DATE: 1960

SIC CODE	GENERAL NAME	LEQ D&A	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE	CONTR.	CODE	CONTR.	CODE	CONTR.
1543	BACK/COMPRES AIR	87.0	1542	0.90	1552	0.10	0	0.0
1543	BACK/COMPRES AIR	84.0	1542	0.60	1544	0.40	0	0.0
1543	BACK/COMPRES AIR	90.0	1544	0.60	1535	0.40	0	0.0
1536	BACK/VENTILATION	85.0	1552	0.40	1443	0.30	1436	0.30
1536	BACK/VENTILATION	82.0	1552	0.40	1443	0.30	1466	0.30
1506	BACK/CUTOFF WHEEL	90.0	1506	0.70	1542	0.20	1602	0.10
1506	BACK/CUTOFF WHEEL	93.0	1506	0.60	1542	0.40	0	0.0
1485	BACK/SHAKEOUT	86.0	1486	0.80	1542	0.20	0	0.0
1485	BACK/SHAKEOUT	90.0	1492	0.60	1160	0.40	0	0.0
1485	BACK/SHAKEOUT	86.0	1486	0.80	1535	0.20	0	0.0
1485	BACK/SHAKEOUT	84.0	1486	0.60	1535	0.30	1443	0.10
1435	BACK/FURNACE	86.0	1443	0.60	1436	0.30	1535	0.10
1435	BACK/FURNACE	87.0	1552	0.30	1443	0.50	1436	0.20
1435	BACK/FURNACE	62.0	1442	0.70	1544	0.30	0	0.0
1435	BACK/FURNACE	65.0	1436	0.60	1535	0.30	1336	0.10
1159	BACK/MLD/BRN/CLUG	90.0	1160	0.60	1535	0.40	0	0.0
1159	BACK/MLD/BRN/CLUG	91.0	1160	0.60	1506	0.20	0	0.0
1104	BACK/PN GRINDER	90.0	1116	0.70	1535	0.30	0	0.0
1104	BACK/PN GRINDER	84.0	1119	0.70	1535	0.30	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1160	ARC AIR GOUGERS	2	106.0	2.83
1118	PM DISC GRINDER	2	102.5	2.12
1492	SHAKEOUT TABLE	4	101.5	3.42
1508	CUT-OFF WHEEL	2	100.0	0.0
1338	SQUEEZ/JOLT HOLDER	6	99.0	3.63
1119	PM CONE GRINDER	5	97.0	2.55
1451	NU-BAKE CURE	1	96.0	0.0
1517	STAND STONE GRIND	1	96.0	0.0
1120	PM WHEEL GRINDER	1	95.3	0.0
1542	COMPRESSED AIR	5	94.2	1.74
1512	SWING GRINDER	2	94.0	0.0
1450	SHELL COKE	1	93.0	0.0
1486	SHAKEOUT	3	92.7	3.51
1373	SANDMULLER	1	92.0	0.0
1438	INDUCT. FURNACE	2	92.0	5.0
1506	BACK/CUTOFF WHEEL	2	91.5	2.12
1443	LADLE PRE-HEAT	2	91.0	1.41
1159	BACK/MLD/BRN/GOUG	2	90.5	0.71
1104	BACK/PM GRINDER	2	89.5	0.71
1543	BACK/COMPRSD AIR	3	88.7	1.53
1485	BACK/SHAKEOUT	4	88.3	1.71
1442	FURNACE	1	88.0	0.0
1499	WHEELABRATOR	1	87.0	0.0
1802	FORKLIFT	2	87.0	1.41
1435	BACK/FURNACE	4	85.5	2.65
1334	BACK/HOLDERS	1	84.5	0.0
1544	BACK. ONLY CONTR.	0	83.9	1.53
1536	BACK/VENTILATION	2	83.5	2.12
1166	WELDING/ARC	3	83.0	3.46
1535	VENTILATION	1	82.0	0.0
1552	BACK. ONLY CONTR.	0	73.9	1.53

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

EQUIPMENT NOISE DATA AVERAGES (Leq) GENERALIZED

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN _EQ(DBA)	STU. DEV.
1505	CUT-OFF WHEEL	2	100.0	0.0
1103	PNEUMATIC GRINDER	8	98.2	2.47
1484	SHAKEOUT/DUMPOUT	7	97.7	3.45
1144	PNEUMATIC TAMPER	1	97.0	0.0
1333	MOLDER	7	97.0	3.63
1510	ELECTRIC GRINDERS	3	94.7	0.0
1448	CORE OVEN	2	94.2	0.0
1457	CORE SET LINE	1	94.0	0.0
1158	WELD/BURN/GOUGING	5	92.2	3.27
1525	HAMMERING	1	92.0	0.0
1371	MULLER	1	92.0	0.0
1434	FURNACE	5	90.5	4.12
1497	WHEELABRATOR	1	87.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 4635

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 7

DATE: 1960

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING		EQUIPMENT		CODE	
			CODE	TIME	CODE	TIME	CODE	TIME
505	CUT-OFF WHEEL OPER	3	1506	60.0	1104	40.0	0	0.0
467	WHELLABRATOR OPER	3	1104	40.0	1485	30.0	1536	30.0
433	COKE ROOM TURNER	7	1543	40.0	1465	30.0	1435	30.0
422	NO-BAKE COKE OPER	5	1451	2.0	1543	49.0	1536	49.0
421	SHELL COKE OPERATOR	1	1536	30.0	1465	20.0	1543	50.0
368	MELTER/PURKER	3	1438	60.0	1435	10.0	1104	10.0
			1465	10.0	1334	10.0	0	0.0
340	SQUEZ/JULT MOLDER OP	2	1338	15.0	1104	50.0	1159	35.0
340	SQUEZ/JULT MOLDER OP	3	1338	10.0	1435	40.0	0	0.0
310	ARC AIR COOLER	2	1160	60.0	1104	40.0	0	0.0
303	ARC WELDER/A	3	1160	60.0	1104	30.0	1159	10.0
281	STAND STONE GRINDER	2	1517	60.0	1104	40.0	0	0.0
279	SHING GRINDER OPER	1	1512	60.0	1104	40.0	0	0.0
275	PN GRINDER OPER	10	1120	30.0	1119	30.0	1104	40.0
265	LABORER	1	1573	50.0	1435	30.0	1104	15.0
			1465	5.0	0	0.0	0	0.0
265	LABORER	5	1435	60.0	1438	10.0	1104	10.0
			1485	10.0	1334	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
50500	CUT-OFF WHEEL OPER	3	1508	4.8	0.0
			1104	3.2	0.0
46700	WHELLABRATOR OPER	3	1104	3.2	0.0
			1485	2.4	0.0
			1536	2.4	0.0
43300	CURE ROOM WORKER	7	1543	3.2	0.0
			1485	2.4	0.0
			1435	2.4	0.0
42200	NO-BAKE CURE OPER	5	1451	0.2	0.0
			1543	3.9	0.0
			1536	3.9	0.0
42100	SHELL CURE OPERATOR	1	1536	2.4	0.0
			1485	1.8	0.0
			1543	4.0	0.0
36800	MELTER/POURER	3	1436	4.8	0.0
			1435	0.8	0.0
			1104	0.8	0.0
			1485	0.8	0.0
			1534	0.8	0.0
34601	SQUEZ/JOLT MOLDER OP	3	1338	0.8	0.0
			1435	7.2	0.0
34000	SQUEZ/JOLT MOLDER OP	2	1336	1.2	0.0
			1104	4.0	0.0
			1154	2.8	0.0
31000	ARC AIR GUGGER	2	1180	4.8	0.0
			1104	3.2	0.0

ENVIRONMENTAL PROTECTION AGENCY

DOM JOB NO. 9033

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 7		NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NR. MEAN TIME-EMRS	NR. STD. DEVIATION
30300	ARC WELDER/A	3	1160	4.8	0.0
			1104	2.4	0.0
			1159	0.6	0.0
28100	STAND STONE GRINDER	2	1517	4.0	0.0
			1104	3.2	0.0
27900	SHING GRINDER OPER	1	1512	4.8	0.0
			1104	3.2	0.0
27500	PM GRINDER OPER	10	1120	2.4	0.0
			1119	2.4	0.0
			1104	3.2	0.0
26501	LABORER	6	1435	4.8	0.0
			1435	0.8	0.0
			1104	0.8	0.0
			1485	0.8	0.0
			1334	0.8	0.0
26500	LABORER	1	1375	4.0	0.0
			1435	2.4	0.0
			1104	1.2	0.0
			1485	0.4	0.0

Report 4535

Bolt Beranek and Newman Inc.

Seven Plant Average

ENVIRONMENTAL PROTECTION AGENCY

EON JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

AVERAGE FOR INDUSTRY

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1160	ARC AIR COUGERS	7	106.4	3.62
1483	PN VIBRATOR	1	105.0	0.0
1490	SHAKEOUT CONVEYOR	1	105.0	0.0
1137	PN CHISEL	4	103.8	9.07
1503	RADIAL SAW	1	102.0	0.0
1341	MULDMASTER	3	101.0	2.65
1492	SHAKEOUT TABLE	6	101.0	3.03
1494	SHAKEOUT TABLE	2	101.0	5.66
1437	ARC FURNACE	3	100.3	3.79
1508	CUT-OFF WHEEL	2	100.0	0.0
1338	SQUEEZ/JOLT MOLDER	17	99.9	6.49
1118	PN DISC GRINDER	7	99.7	3.04
1507	CUT-OFF WHEEL	3	99.0	2.65
1482	PN VIBRATOR	3	98.7	3.06
1195	SPIRALBLAST	1	98.0	0.0
1387	SANDSLINGER	2	98.0	0.0
1453	FLEXIDLU CORE MKR	1	98.0	0.0
1491	SHAKEOUT CONVEYOR	1	98.0	0.0
1375	SAND HOPPER/VIB	5	97.6	2.51
1513	WHEEL GRINDER	2	97.0	7.07
1335	AUTO-MOLDER	2	95.5	2.12
1119	PN CONE GRINDER	14	95.4	2.21
1120	PN WHEEL GRINDER	15	95.3	2.79
1146	PN TAMPER	7	95.1	4.56
1189	ABRASIVE BLAST	1	95.0	0.0
1446	CRUCIBLE	1	95.0	0.0
1450	SHELL COKE	5	95.0	1.41
1451	NU-BAKE CURE	2	95.0	1.41
1509	TABUR CUT-OFF WHL	1	95.0	0.0
1542	COMPRESSED AIR	6	94.6	4.76
1477	HUIST	1	94.0	0.0
1502	BAND SAW	1	94.0	0.0
1336	SHELL MULDER	3	93.7	2.52
1512	SHING GRINDER	3	93.7	0.58
1396	EXHAUST FAN	1	93.0	0.0
1459	CURE SET LINE	1	93.0	0.0
1117	PN DRILL GRINDER	6	92.6	2.56
1193	ABRASIVE BLAST	1	92.0	0.0
1194	RUTUBLAST	5	92.0	3.39
1337	MI-PRESS. MOLDER	1	92.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332

AVERAGE FOR INDUSTRY

NO. DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STJ. DEV.
1397	EXHAUST FAN	1	92.0	0.0
1486	SHAKEOUT	6	91.7	3.33
1517	STAND STONE GRIND	10	91.5	2.40
1339	MULDER	1	91.0	0.0
1438	INDUCT. FURNACE	7	91.0	5.13
1374	MULLER	5	90.6	2.51
1499	WHEELABRATOR	5	90.2	5.63
1443	LADLE PRE-HEAT	5	90.0	3.61
1445	BACK/CRUCIBLE	1	90.0	0.0
1471	BACK/OVERHD CRANE	1	90.0	0.0
1440	FURNACE	2	89.5	4.95
1485	BACK/SHAKEOUT	10	89.3	3.37
1104	BACK/PN GRINDER	3	89.0	1.00
1506	BACK/CUTOFF WHEEL	6	88.2	3.06
1458	BACK/CORE SET LIN	1	88.0	0.0
1501	BACK/SAW/METAL	2	88.0	0.0
1511	BACK/ELEC GRINDER	3	88.0	0.0
1159	BACK/MLD/BRN/COUG	4	87.8	3.20
1373	SANDMULLER	3	87.7	11.15
1386	BACK/SANDSLINGER	3	87.3	5.03
1395	BACK/EXHAUST FAN	1	87.0	0.0
1442	FURNACE	2	87.0	1.41
1175	WELD/ACETYLENE	1	86.0	0.0
1802	FORKLIFT	3	85.7	2.52
1496	BACK/WHEELABRATOR	2	85.5	0.71
1136	BACK/PN CHISEL	2	85.0	0.0
1188	BACK/ABRASV BLAST	1	85.0	0.0
1526	BACK/HAMMER	1	85.0	0.0
1334	BACK/MOLVERS	4	84.8	2.00
1372	BACK/MULLER	3	84.3	4.62
1543	BACK/COMPRSD AIR	6	83.8	7.91
1435	BACK/FURNACE	19	83.5	4.60
1536	BACK/VENTILATION	9	83.3	2.65
1102	BACK/FIN/GRINDERS	3	83.0	1.00
1145	BACK/PN TAMPER	2	83.0	7.07
1166	WELDING/ARC	3	83.0	3.46
1535	VENTILATION	2	82.5	0.71
1449	BACK/CORE EQUIP	3	82.3	4.51
1340	MULDER-PACEMAKER	1	82.0	0.0
1452	CURE OVEN	1	82.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9655

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332 AVERAGE FOR INDUSTRY NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1493	BACK. ONLY CONTR.	0	80.4	3.37
1551	BACK/EXHAUST FAN	3	79.7	7.02
1481	BACK/PN VIBRATOR	1	78.0	0.0
1552	BACK. ONLY CONTR.	0	77.4	7.02
1544	BACK. ONLY CONTR.	0	76.1	7.91

ENVIRONMENTAL PROTECTION AGENCY

888 JOB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEW) GENERALIZED

SIC CODE = 332

AVERAGE FOR INDUSTRY

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1135	PNEUMATIC CHISEL	4	103.8	9.07
1480	PNEUMATIC VIBRATOR	4	100.2	3.00
1505	CUT-OFF WHEEL	6	98.7	2.16
1158	WELD/BURN/GROUTING	11	98.2	3.74
1500	SAW/METAL	2	98.0	0.0
1385	SANDSLINGER	2	98.0	0.0
1333	MULLER	28	97.8	5.80
1484	SHAKEOUT/DUMPOUT	16	97.8	3.44
1525	HAMMERING	2	96.0	5.60
1392	HYDRAULIC PUMP	1	96.0	0.0
1103	PNEUMATIC GRINDER	44	95.5	2.62
1144	PNEUMATIC TAMPER	8	95.4	4.50
1444	CRUCIBLE	1	95.0	0.0
1448	CURE OVEN	4	93.4	1.41
1457	LOOSE SET LINE	2	93.2	0.0
1187	ABRASIVE BLASTING	8	93.1	3.34
1510	ELECTRIC GRINDERS	15	92.7	2.40
1371	MULLER	13	92.0	5.47
1394	EXHAUST FAN	2	92.5	0.0
1460	LATHE	2	92.0	0.0
1434	FURNACE	19	91.0	4.40
1497	WHEELABRATOR	5	90.2	5.63

ENVIRONMENTAL PROTECTION AGENCY

SEN JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-HRS	NOR. STD. DEVIATION
53400	PRESS OPERATOR	6	1102	6.0	0.0
50600	TABOR CUT-OFF SAW OP	2	1509 1102	6.4 1.6	0.0 0.0
50503	CUT-OFF WHEEL OPER	2	1507 1506 1395	4.8 2.4 0.8	0.0 0.0 0.0
50502	CUT-OFF WHEEL OPER	2	1507 1372	5.6 2.4	0.0 0.0
50501	CUT-OFF WHEEL OPER	2	1506 1102	6.4 1.6	0.0 0.0
50500	CUT-OFF WHEEL OPER	3	1508 1104	4.8 3.2	0.0 0.0
50400	RADIAL SAW OPERATOR	2	1503 1501	4.8 3.2	0.0 0.0
50200	BAND SAW OPERATOR	2	1502 1501	4.8 3.2	0.0 0.0
48003	OVERHEAD CRANE OPER	2	1471 1102 1166	2.4 3.2 2.4	0.0 0.0 0.0
48002	OVERHEAD CRANE OPER	2	1471 1386 1485	3.2 4.0 0.8	0.0 0.0 0.0
48001	OVERHEAD CRANE OPER	2	1471 1435	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
48000	OVERHEAD CRANE OPER	2	1471	6.0	0.0
46703	MHELLABRATOR UPER	1	1499	4.8	0.0
			1490	0.8	0.0
			1494	1.6	0.0
			1485	0.6	0.0
46702	MHELLABRATOR OPER	2	1494	4.8	0.0
			1506	3.2	0.0
46701	MHELLABRATOR UPER	4	1499	6.8	0.0
			1102	1.2	0.0
46700	MHELLABRATOR UPER	3	1104	3.2	0.0
			1485	2.4	0.0
			1536	2.4	0.0
46200	CUPOLA OPERATOR	1	1440	2.6	0.0
			1485	2.4	0.0
46101	INSPECTOR	1	1490	1.6	0.0
			1525	1.6	0.0
			1526	4.0	0.0
46100	INSPECTOR	2	1102	5.6	0.0
			1000	1.6	0.0
			1154	0.8	0.0
45900	SHIFTER	3	1440	2.6	0.0
			1436	0.8	0.0
			1485	6.4	0.0
45000	DUMPOUT/SHAKEOUT OP	2	1490	2.6	0.0
			1494	1.6	0.0
			1485	0.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

EDN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
44301	SHAKEOUT TABLE OPER	2	1494	3.2	0.0
			1485	1.6	0.0
			1435	3.2	0.0
44300	SHAKEOUT TABLE OPER	4	1492	0.0	0.0
			1485	2.0	0.0
44002	SHAKEOUT OPERATOR	4	1400	4.0	0.0
			1405	3.2	0.0
44001	SHAKEOUT OPERATOR	2	1400	0.4	0.0
			1501	1.6	0.0
44000	SHAKEOUT OPERATOR	0	1400	4.0	0.0
			1372	1.6	0.0
			1395	2.4	0.0
43301	CURE ROOM WORKER	17	1452	2.4	0.0
			1444	5.6	0.0
43300	CURE ROOM WORKER	7	1543	3.2	0.0
			1405	2.4	0.0
			1435	2.4	0.0
42900	DIL-BAKE COKE MAKER	2	1483	0.2	0.0
			1551	7.8	0.0
42700	CURE GLUER	1	1450	1.6	0.0
			1334	0.4	0.0
42600	CURE SETTER	3	1454	0.4	0.0
			1485	1.6	0.0
42203	NU-BAKE CURE OPER	5	1451	4.0	0.0
			1449	4.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352
 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
42202	NU-BAKE CURE OPER	1	1543	0.0	0.0
42201	NU-BAKE CURE OPER	1	1551	0.0	0.0
42200	NU-BAKE CURE OPER	5	1451	0.2	0.0
			1543	3.9	0.0
			1536	3.9	0.0
42104	SHELL CURE OPERATOR	1	1450	5.6	0.0
			1334	2.4	0.0
42103	SHELL CURE OPERATOR	5	1450	4.0	0.0
			1449	4.0	0.0
42102	SHELL CURE OPERATOR	4	1450	4.0	0.0
			1154	4.0	0.0
42101	SHELL COKE OPERATOR	6	1450	5.6	0.0
			1372	2.4	0.0
42100	SHELL COKE OPERATOR	1	1536	2.4	0.0
			1485	1.6	0.0
			1543	4.0	0.0
40500	SPIRALBLAST OPERATOR	1	1195	3.2	0.0
			1435	2.4	0.0
			1485	2.4	0.0
40400	MACHINE BLASTER	4	1195	0.0	0.0
			1188	2.0	0.0
40300	HAND BLASTER	2	1189	4.0	0.0
			1188	2.0	0.0
			1102	2.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	HRK. MEAN TIME-HRS	HRK. STD. DEVIATION
40204	RUTOBLAST OPERATOR	1	1194	2.4	0.0
			1501	5.6	0.0
40203	RUTOBLAST OPERATOR	2	1194	4.0	0.0
			1372	2.4	0.0
40202	RUTOBLAST OPERATOR	2	1194	6.8	0.0
			1102	1.2	0.0
40201	RUTOBLAST OPERATOR	2	1194	6.0	0.0
			1186	2.0	0.0
40206	RUTOBLAST OPERATOR	1	1194	1.2	0.0
			1449	1.2	0.0
			1104	5.6	0.0
39500	SANDSLINGER OPERATOR	2	1387	1.2	0.0
			1136	2.4	0.0
			1485	3.2	0.0
			1494	1.2	0.0
38800	SANDMULLER OPERATOR	1	1373	6.4	0.0
			1136	0.8	0.0
			1441	0.8	0.0
38504	MULLER OPER	1	1374	4.8	0.0
			1334	3.2	0.0
38503	MULLER OPER	1	1374	5.6	0.0
			1485	2.4	0.0
38502	MULLER OPER	1	1374	5.6	0.0
			1501	2.4	0.0
38501	MULLER OPER	1	1374	4.0	0.0
			1372	1.6	0.0
			1345	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
36500	MULLER OPER	1	1372	0.8	0.0
			1145	1.9	0.0
			1435	4.5	0.0
			1543	0.2	0.0
36801	MELTER/POURER	6	1438	4.0	0.0
			1372	1.6	0.0
			1345	2.4	0.0
36800	MELTER/POURER	3	1438	4.0	0.0
			1435	0.8	0.0
			1104	0.8	0.0
			1485	0.8	0.0
			1334	0.0	0.0
36704	POURER	6	1440	2.4	0.0
			1438	2.4	0.0
			1485	3.2	0.0
36703	POURER	2	1440	1.6	0.0
			1501	5.6	0.0
			1435	0.8	0.0
36702	POURER	2	1440	1.6	0.0
			1485	5.6	0.0
			1435	0.8	0.0
36701	POURER	4	1437	3.2	0.0
			1435	3.2	0.0
			1485	1.6	0.0
36700	POURER	8	1435	3.2	0.0
			1485	2.4	0.0
			1536	1.2	0.0
			1334	0.8	0.0
			1481	0.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

80N JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352
 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-BHRS	NO. STD. DEVIATION
35000	MULD WASH WORKER	1	1337	1.0	0.0
			1491	1.0	0.0
			1130	4.0	0.0
34300	MULDMASTER OPERATOR	6	1341	2.8	0.0
			1375	2.0	0.0
			1536	2.4	0.0
34200	PACEMAKER MULDUR OPER	1	1340	3.2	0.0
			1435	1.0	0.0
			1485	3.2	0.0
34105	FLOOR MOLDER	2	1140	1.0	0.0
			1501	5.0	0.0
			1402	0.0	0.0
34104	FLOOR MOLDER	4	1140	2.4	0.0
			1435	5.0	0.0
34103	FLOOR MOLDER	4	1140	2.4	0.0
			1300	3.2	0.0
			1485	2.4	0.0
34102	FLOOR MOLDER	4	1300	0.4	0.0
			1485	1.2	0.0
			1471	0.4	0.0
34101	FLOOR MOLDER	2	1435	0.0	0.0
34100	FLOOR MOLDER	4	1140	2.4	0.0
			1435	5.0	0.0
34004	SQUEZ/JULT MOLDER OP	18	1330	5.0	0.0
			1334	2.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9633

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-BHRS	NO. STD. DEVIATION
34003	SQUEZ/JOLT MOLDER OP	7	1336	5.6	0.0
			1372	2.4	0.0
34002	SQUEZ/JOLT MOLDER OP	5	1146	0.5	0.0
			1336	0.3	0.0
			1482	0.3	0.0
			1145	2.1	0.0
			1435	4.8	0.0
34001	SQUEZ/JOLT MOLDER OP	3	1336	0.8	0.0
			1435	7.2	0.0
34000	SQUEZ/JOLT MOLDER OP	2	1336	1.2	0.0
			1104	4.0	0.0
			1159	2.8	0.0
33901	AUTO-MOLDER OPERATOR	2	1335	0.4	0.0
			1334	1.0	0.0
33900	AUTO-MOLDER OPERATOR	2	1335	0.4	0.0
			1372	1.6	0.0
33800	SHELLMOLDER OPERATOR	4	1336	4.0	0.0
			1506	4.0	0.0
33700	HI PRESS. MOLDER OP	2	1337	4.6	0.0
			1506	1.6	0.0
			1146	0.4	0.0
			1342	0.4	0.0
			1491	0.8	0.0
33101	LADLE SKIMMER	2	1435	2.4	0.0
			1386	2.4	0.0
			1536	2.4	0.0
			1334	0.4	0.0
			1461	0.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9835

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NR. MEAN TIME-HRS	NR. STD. DEVIATION
33100	LADLE SKIMMER	2	1485	4.0	0.0
			1536	1.6	0.0
			1435	1.6	0.0
			1334	0.4	0.0
			1481	0.4	0.0
33002	LADLE PRE-HEATER	2	1435	6.0	0.0
33001	LADLE PRE-HEATER	2	1435	6.4	0.0
			1137	1.6	0.0
33000	LADLE PRE-HEATER	2	1435	7.2	0.0
			1485	0.6	0.0
32900	CUPOLA FURNACE OPER	2	1440	5.6	0.0
			1435	2.4	0.0
32800	FURNACE CHARGER	1	1440	2.4	0.0
			1436	2.4	0.0
			1485	3.2	0.0
32701	INDUCT. FURNACE OPER	1	1436	5.6	0.0
			1485	2.4	0.0
32700	INDUCT. FURNACE OPER	2	1436	4.8	0.0
			1154	3.2	0.0
32600	ARC FURNACE OPERATOR	5	1437	5.8	0.36
			1435	2.2	0.36
32500	FURNACE OPERATOR	4	1446	4.8	0.0
			1445	1.6	0.0
			1485	1.6	0.0
31900	POWDER BURNER	2	1160	5.2	0.0
			1102	2.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSHA JOB NO. 9033

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUM. MEAN TIME-HRS	NUM. STD. DEVIATION
31800	GAS BURNER	2	1160	3.2	0.0
			1102	2.8	0.0
31004	ARC AIR GUUGER	2	1160	0.4	0.0
			1517	1.6	0.0
31003	ARC AIR GUUGER	4	1160	3.6	0.0
			1102	2.4	0.0
31002	ARC AIR GUUGER	2	1160	3.6	0.0
			1159	2.4	0.0
31001	ARC AIR GUUGER	2	1160	4.0	0.0
			1159	2.4	0.0
			1102	1.6	0.0
31000	ARC AIR GUUGER	2	1160	4.0	0.0
			1104	3.2	0.0
30700	ACETYLENE WELDER	1	1175	1.2	0.0
			1104	4.0	0.0
			1000	2.8	0.0
30304	ARC WELDER/A	10	1160	4.8	0.0
			1102	2.0	0.0
			1160	1.2	0.0
30303	ARC WELDER/A	2	1160	3.6	0.0
			1159	2.4	0.0
30302	ARC WELDER/A	4	1160	0.4	0.0
			1159	1.2	0.0
			1102	0.4	0.0
30301	ARC WELDER/A	10	1160	3.6	0.0
			1159	1.6	0.0
			1160	0.8	0.0

ENVIRONMENTAL PROTECTION AGENCY

EPA JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	HR. MEAN TIME-HRS	HR. STD. DEVIATION
30300	ARC WELDER/A	3	1160	4.8	0.0
			1104	2.4	0.0
			1159	0.8	0.0
30200	ARC-AIR OPERATOR	6	1160	4.0	0.0
			1159	3.2	0.0
			1395	0.8	0.0
28200	TRIM GRINDER UPEK	4	1503	4.8	0.0
			1501	3.2	0.0
28104	STAND STONE GRINDER	4	1517	4.8	0.0
			1501	3.2	0.0
28103	STAND STONE GRINDER	2	1517	4.8	0.0
			1511	2.4	0.0
			1395	0.8	0.0
28102	STAND STONE GRINDER	5	1517	3.2	0.0
			1372	1.6	0.0
			1117	3.2	0.0
28101	STAND STONE GRINDER	10	1517	0.4	0.0
			1102	1.6	0.0
28100	STAND STONE GRINDER	2	1517	4.8	0.0
			1104	3.2	0.0
28001	WHEEL GRINDER OPER	6	1513	0.4	0.0
			1511	1.6	0.0
28000	WHEEL GRINDER OPER	5	1513	3.2	0.0
			1372	1.6	0.0
			1117	3.2	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 7833

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
27902	SWING GRINDER OPER	3	1512	3.6	0.0
			1511	2.4	0.0
27901	SWING GRINDER OPER	4	1512	6.4	0.0
			1102	1.6	0.0
27900	SWING GRINDER OPER	1	1512	4.8	0.0
			1104	3.2	0.0
27800	PM CONE GRINDER OPER	3	1114	4.0	0.0
			1506	3.2	0.0
			1395	0.8	0.0
27700	PM DISC GRINDER OPER	4	1118	4.0	0.0
			1506	3.2	0.0
			1395	0.8	0.0
27600	PM DRILL GRINDER OP	1	1117	0.4	0.0
			1526	1.6	0.0
27503	PM GRINDER OPER	6	1120	4.0	0.0
			1506	3.2	0.0
			1395	0.8	0.0
27502	PM GRINDER OPER	62	1120	1.5	0.14
			1114	1.1	0.35
			1118	1.0	0.25
			1117	1.0	0.25
			1102	3.5	0.75
27501	PM GRINDER OPER	1	1517	4.0	0.0
			1104	4.0	0.0
27500	PM GRINDER OPER	13	1120	2.5	0.18
			1114	2.1	0.33
			1104	3.4	0.35

APPENDIX E

Sawmill Industry - Individual Plant Results

The results presented here for each plant are in the form of eight tables, which correspond to tables 5-1 to 5-9 (excluding 5-7) in section 5, corresponding to the industry average results. There is one group of eight tables for each of the nine plants.

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 1

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL N.C.	LEV. MEAN	WT. PUP. N.C.
17300	GRADER/PLANER MILL	16	92.1	92.1	117	117
16700	PLANER OPERATOR	8	93.3	93.3	67	67
13400	EDGE OPERATOR	4	97.1	97.7	48	51
21300	MILLWRIGHT/PLANER	3	99.4	103.5	44	48
13700	CHIPPER OPERATOR	2	100.9	105.1	33	45
16800	PLANER SET-UP MAN	2	100.7	101.7	33	35
12700	TAIL SAWYER	4	93.1	93.1	32	32
14801	TRIMMER OPERATOR	4	92.2	92.2	29	29
17600	DRY CHAIN PULLER	20	82.5	85.5	28	55
10400	PLANER SUPERVISOR	4	91.0	91.0	25	25
20100	LUMBER CARRIER OPER	8	86.0	86.0	24	33
22800	ELECTRICIANS	5	88.8	85.8	23	23
26100	CLEAN-UP MAN/REGULAR	2	96.6	103.5	23	32
21100	MILLWRIGHT/GENERAL	4	89.3	95.4	20	45
24800	POMERHOUSE OPERATOR	12	83.1	83.1	19	19
23300	CARPENTERS	4	88.2	88.2	17	17
14000	RESAW OPERATOR	2	91.8	91.8	14	14
11700	DECK SCALER	2	91.8	92.7	14	15
26200	CLEAN-UP MAN/DOWN TM	3	88.0	88.0	12	12
14800	TRIMMER OPERATOR	4	86.2	86.4	12	17
15400	STACKER-GREEN	4	86.0	85.0	12	12
19100	SPECIALTY RESAW OFFB	2	90.0	91.4	11	13
12300	SAWYER	4	85.5	85.5	11	11
10100	SAWMILL SUPERVISOR	3	87.2	87.2	11	11
19700	MOULDER OFFBEARER	2	89.0	89.0	9	9
23800	PIPE-FITTERS	2	86.2	86.2	8	8
16100	UNSTACKER-DKY	2	88.0	88.0	8	8
19000	SPECIALTY RESAW OPER	2	88.0	90.8	8	12
14500	GREEN CHAIN OPERATOR	4	84.0	85.4	8	10
19600	MOULDER FEEDER	2	87.1	87.1	7	7
20200	FORKLIFT OPERATOR	11	80.0	80.0	6	6
15500	STICKERMAN-GREEN	2	86.0	86.0	6	6
15100	GREEN CHAIN PULLER	2	84.0	85.4	4	5
18100	CHECKERS	6	80.0	80.0	3	3
11100	LOG CARRIER OPER	1	87.0	87.0	3	3
15600	UNIPAC OPERATOR	2	82.0	82.0	2	2
17900	BANDER OPERATOR	3	80.0	80.0	1	1
20700	RAILCAR LOADER	9	76.5	77.2	0	1
16200	UNSTACKER PULLER	2	<75.0	<75.0	0	0
11400	DEBARKER OPERATOR	2	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 963

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	5JUND MEAN	LEVEL W.C.	LEV. WT. MEAN	POP. W.C.
10700	POND SURTER	4	<75.0	<75.0	0	0
10800	LOG SURTER	2	<75.0	<75.0	0	0
16000	KILN OPERATUR	3	<75.0	<75.0	0	0
21900	MACHINISTS	3	<75.0	<75.0	0	0
22300	MECHANICS	3	<75.0	<75.0	0	0
24400	FILEKS	6	<75.0	<75.0	0	0

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA

8-HR PERMISSIBLE LEVEL = 90.0 DBA

EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
13700	CHIPPER OPERATOR	2	99.5	103.7	3.75	6.67
16800	PLANER SET-UP MAN	2	97.7	98.5	2.92	3.23
13400	EDGER OPERATOR	4	96.4	97.0	2.44	2.63
16700	PLANER OPERATOR	8	93.3	93.3	1.58	1.58
21300	MILLRIGHT/PLANER	3	92.7	93.9	1.46	1.71
26100	CLEAN-UP MAN/REGULAK	2	92.6	96.4	1.44	2.41
17300	GRADER/PLANER MILL	16	92.0	92.0	1.33	1.33
14801	TRIMMER OPERATOR	4	90.0	90.0	1.00	1.00
14000	RESAM OPERATOR	2	<90.0	<90.0	0.99	0.99
10400	PLANER SUPERVISOR	4	<90.0	<90.0	0.87	0.87
2700	TAIL SAWYER	4	<90.0	<90.0	0.61	0.61
23800	PIPE-FITTERS	2	<90.0	<90.0	0.31	0.31
23300	CARPENTERS	4	<90.0	<90.0	0.31	0.31
22800	ELECTRICIANS	5	<90.0	<90.0	0.24	0.24
11700	DECK SCALER	2	<90.0	<90.0	0.21	0.29
10100	SAWMILL SUPERVISOR	3	<90.0	<90.0	0.20	0.20
10700	POND SORTER	4	<90.0	<90.0	0.00	0.0
10800	LOG SURTER	2	<90.0	<90.0	0.00	0.0
11100	LOG CARRIER OPER	1	<90.0	<90.0	0.00	0.0
11400	DEBAKER OPERATOR	2	<90.0	<90.0	0.00	0.0
12300	SAWYER	4	<90.0	<90.0	0.00	0.0
14500	GREEN CHAIN OPERATOR	4	<90.0	<90.0	0.00	0.0
14800	TRIMMER OPERATOR	4	<90.0	<90.0	0.00	0.56
15100	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00	0.0
15400	STACKER-GREEN	4	<90.0	<90.0	0.00	0.0
15500	STICKERMAN-GREEN	2	<90.0	<90.0	0.00	0.0
15600	UNIPAC OPERATOR	2	<90.0	<90.0	0.00	0.0
18000	KILN OPERATOR	3	<90.0	<90.0	0.00	0.0
16100	UNSTACKER-DRY	2	<90.0	<90.0	0.00	0.0
16200	UNSTACKER PULLER	2	<90.0	<90.0	0.00	0.0
17600	DRY CHAIN PULLER	20	<90.0	<90.0	0.00	0.0
17900	BANDER OPERATOR	3	<90.0	<90.0	0.00	0.0
18100	CHECKERS	6	<90.0	<90.0	0.00	0.0
19000	SPECIALTY RESAM OPER	2	<90.0	90.6	0.00	1.12
19100	SPECIALTY RESAM OFFER	2	<90.0	91.4	0.00	1.22
19600	MOULDER FEEDER	2	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

664 JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
19700	MOULDER OFFBEARER	2	<90.0	<90.0	0.00	0.0
20100	LUMBER CARRIER OPER	8	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	11	<90.0	<90.0	0.00	0.0
20700	RAILCAR LOADER	9	<90.0	<90.0	0.00	0.0
21100	MILLWRIGHT/GENERAL	4	<90.0	95.9	0.00	2.27
21900	MACHINISTS	3	<90.0	<90.0	0.00	0.0
22300	MECHANICS	3	<90.0	<90.0	0.00	0.0
24400	FILERS	6	<90.0	<90.0	0.00	0.0
24800	POWERHOUSE OPERATOR	12	<90.0	<90.0	0.00	0.0
26200	CLEAN-UP MAN/DOWN TM	3	<90.0	<90.0	0.00	0.0

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242 PLANT NO. = 1 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. MEAN	HT. H.C.	PUP. H.C.
173	GRADER/PLANER MILL	16	92.1	92.1	117	117	
167	PLANER OPERATOR	8	93.3	93.3	67	67	
134	EDGE OPERATOR	4	97.1	97.7	48	51	
213	MILLWRIGHT/PLANER	3	99.4	100.5	44	48	
148	TRIMMER OPERATOR	8	89.2	90.3	42	47	
137	CHIPPER OPERATOR	2	100.9	100.1	33	45	
168	PLANER SET-UP MAN	2	100.7	101.7	33	35	
127	TAIL SAWYER	4	93.1	93.1	32	32	
176	DRY CHAIN PULLER	20	82.5	82.5	28	55	
104	PLANER SUPERVISOR	4	91.0	91.0	25	25	
201	LUMBER CARRIER OPER	8	86.0	88.0	24	33	
228	ELECTRICIANS	5	88.8	88.8	23	23	
261	CLEAN-UP MAN/REGULAR	2	98.6	100.5	23	32	
211	MILLWRIGHT/GENERAL	4	89.3	96.4	20	45	
248	POWERHOUSE OPERATOR	12	83.1	83.1	19	19	
233	CARPENTERS	4	88.2	88.2	17	17	
140	RESAW OPERATOR	2	91.8	91.8	14	14	
117	DECK SCALER	2	91.8	92.7	14	15	
262	CLEAN-UP MAN/DOWN TM	3	88.0	88.0	12	12	
154	STACKER-GREEN	4	88.0	88.0	12	12	
191	SPECIALTY RESAW OFFB	2	90.0	91.4	11	13	
123	SAWYER	4	85.5	85.5	11	11	
101	SAWMILL SUPERVISOR	3	87.2	87.2	11	11	
197	MOULDER OFFBEARER	2	89.0	89.0	9	9	
238	PIPE-FITTERS	2	88.2	88.2	8	8	
161	UNSTACKER-DRY	2	88.0	88.0	8	8	
190	SPECIALTY RESAW OPER	2	88.0	90.8	8	12	
145	GREEN CHAIN OPERATOR	4	84.0	85.4	8	10	
196	MOULDER FEEDER	2	87.1	87.1	7	7	
202	FORKLIFT OPERATOR	11	80.0	80.0	6	6	
155	STICKERMAN-GREEN	2	86.0	86.0	6	6	
151	GREEN CHAIN PULLER	2	84.0	85.4	4	5	
181	CHECKERS	6	80.0	80.0	3	3	
111	LOG CARRIER OPER	1	87.0	87.0	3	3	
156	UNIPAC OPERATOR	2	82.0	82.0	2	2	
179	BANDER OPERATOR	3	80.0	80.0	1	1	
207	RAILCAR LOADER	9	76.5	77.2	0	1	
162	UNSTACKER PULLER	2	<75.0	<75.0	0	0	
114	DEBARCKER OPERATOR	2	<75.0	<75.0	0	0	
107	POND SURTER	4	<75.0	<75.0	0	0	

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 963

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PDP. M.C.
108	LOG SORTER	2	<75.0	<75.0	0	0
160	KILN OPERATOR	3	<75.0	<75.0	0	0
219	MACHINISTS	3	<75.0	<75.0	0	0
223	MECHANICS	3	<75.0	<75.0	0	0
244	FILERS	6	<75.0	<75.0	0	0

TOTAL NUMBER OF PERSONNEL	201
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	176
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (M.C.)	176
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	53
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.)	61
LEVEL WEIGHTED POPULATION (MEAN)	768.6
LEVEL WEIGHTED POPULATION (M.C.)	878.7

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 dBA
 8-HR PERMISSIBLE LEVEL = 90.0 dBA
 EXCHANGE RATE = 5 dBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	LEVEL H.C.	DAILY NOISE MEAN	DOSE H.C.
137	CHIPPER OPERATOR	2	49.5	103.7	3.75	6.67
168	PLANER SET-UP MAN	2	47.7	93.5	2.92	3.23
134	EDGER OPERATOR	4	46.4	47.0	2.44	2.63
167	PLANER OPERATOR	8	43.3	43.3	1.58	1.58
213	MILLWRIGHT/PLANER	3	42.7	43.9	1.46	1.71
261	CLEAN-UP MAN/REGULAR	2	42.6	46.4	1.44	2.41
173	GRADER/PLANER MILL	16	42.0	42.0	1.33	1.33
140	RESAW OPERATOR	2	<40.0	<40.0	0.99	0.99
104	PLANER SUPERVISOR	4	<40.0	<40.0	0.87	0.87
127	TAIL SAWYER	4	<40.0	<40.0	0.61	0.61
148	TRIMMER OPERATOR	8	<40.0	<40.0	0.50	0.76
236	PIPE-FITTERS	2	<40.0	<40.0	0.31	0.31
233	CARPENTERS	4	<40.0	<40.0	0.31	0.31
228	ELECTRICIANS	5	<40.0	<40.0	0.24	0.24
117	DECK SCALER	2	<40.0	<40.0	0.21	0.29
101	SAWMILL SUPERVISOR	3	<40.0	<40.0	0.20	0.20
107	POND SORTER	4	<40.0	<40.0	0.00	0.0
108	LOG SORTER	2	<40.0	<40.0	0.00	0.0
111	LOG CARRIER OPER	1	<40.0	<40.0	0.00	0.0
114	DEBARKER OPERATOR	2	<40.0	<40.0	0.00	0.0
123	SAWYER	4	<40.0	<40.0	0.00	0.0
145	GREEN CHAIN OPERATOR	4	<40.0	<40.0	0.00	0.0
151	GREEN CHAIN PULLER	2	<40.0	<40.0	0.00	0.0
154	STACKER-GREEN	4	<40.0	<40.0	0.00	0.0
155	STICKERMAN-GREEN	2	<40.0	<40.0	0.00	0.0
156	UNIPAC OPERATOR	2	<40.0	<40.0	0.00	0.0
160	KILN OPERATOR	3	<40.0	<40.0	0.00	0.0
161	UNSTACKER-DRY	2	<40.0	<40.0	0.00	0.0
162	UNSTACKER PULLER	2	<40.0	<40.0	0.00	0.0
176	DRY CHAIN PULLER	20	<40.0	<40.0	0.00	0.0
179	BANDER OPERATOR	3	<40.0	<40.0	0.00	0.0
181	CHECKERS	6	<40.0	<40.0	0.00	0.0
190	SPECIALTY RESAW OPER	2	<40.0	48.8	0.00	1.12
191	SPECIALTY RESAW OFFB	2	<40.0	41.4	0.00	1.22
196	MOULDER FEEDER	2	<40.0	<40.0	0.00	0.0
197	MOULDER OFFBEARER	2	<40.0	<40.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBM JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	H.C.	DAILY NOISE DOSE MEAN	H.C.
201	LUMBER CARRIER OPER	8	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	11	<90.0	<90.0	0.00	0.0
207	RAILCAR LOADER	9	<90.0	<90.0	0.00	0.0
211	MILLWRIGHT/GENERAL	4	<90.0	45.9	0.00	2.27
219	MACHINISTS	3	<90.0	<90.0	0.00	0.0
223	MECHANICS	3	<90.0	<90.0	0.00	0.0
244	FILERS	6	<90.0	<90.0	0.00	0.0
248	POWERHOUSE OPERATOR	12	<90.0	<90.0	0.00	0.0
262	CLEAN-UP MAN/DOWN TM	3	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 201
TOTAL NUMBER OVEREXPOSED (MEAN) = 37
TOTAL NUMBER OVEREXPOSED (H.C.) = 45

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	MURA P.I.
1741	DRY CHAIN CONVEYR	4	82.5	85.5	29	20.6	0.117
1702	PLANER	3	109.3	110.5	44	19.2	0.109
1716	PLANER/ENCL	2	91.0	95.2	57	10.5	0.060
1623	HEADKIG	1	88.0	86.0	43	10.3	0.058
1674	TRIMMER	1	95.0	95.0	13	8.0	0.046
1794	POWERHOUSE	1	84.0	84.0	12	7.4	0.042
1711	PLANER/ENCL	2	93.0	95.8	49	7.2	0.041
1682	GREEN CHAIN CONVY	2	84.0	85.4	6	6.0	0.034
1636	EDGEK	2	99.5	100.2	18	5.5	0.031
1796	POWERHOUSE	1	82.0	82.0	12	4.6	0.026
1690	KILN CHAIN CONVYR	1	86.0	86.0	4	4.0	0.023
1784	CHIPPER	2	103.0	107.2	4	3.7	0.021
1672	TRIMMER	3	88.3	90.8	4	3.2	0.018
1694	KILN CHAIN CONVYR	1	82.0	82.0	11	3.2	0.018
1626	HEADKIG	1	98.0	98.0	4	2.4	0.014
1752	STACK BANDER	1	82.0	82.0	3	2.4	0.014
1788	BACK. ONLY CONTR.	0	84.0	91.1	25	2.1	0.012
1691	KILN CHAIN CONVYR	1	86.0	86.0	2	2.0	0.011
1692	KILN CHAIN CONVYR	1	88.0	88.0	2	2.0	0.011
1762	RESAW-SPEC/ENCL	2	88.0	90.8	2	2.0	0.011
1731	MOULDER/ENCL	1	89.0	89.0	2	2.0	0.011
1766	RESAW-SPEC/ENCL	2	90.0	91.4	2	2.0	0.011
1727	MOULDER/ENCL	1	88.0	88.0	2	2.0	0.011
1647	RESAW-LARGE	1	93.0	93.0	2	1.7	0.010
1627	HEADKIG	1	90.0	90.0	4	1.6	0.009
1670	TRIMMER	2	82.0	83.4	8	0.9	0.005
1612	CUT-OFF SAW	1	87.0	87.0	25	0.8	0.005
1613	CUT-OFF SAW	2	100.5	102.5	2	0.7	0.004
1751	STACK BANDER	1	76.0	76.0	3	0.6	0.003
1635	EDGEK	2	91.0	92.4	4	0.5	0.003

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 963

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	N P
1622	HEADRIG	1	83.0	83.0	4	0.4	0.1
1646	RESAM-LARGE	1	88.0	88.0	2	0.3	0.1
1783	CHIPPER	2	91.0	92.4	4	0.1	0.1
1726	MODULER/ENCL	1	78.0	78.0	2	0.0	0.1

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1702	PLANER	3	109.3	110.5	29	11.3	0.307
171b	PLANER/ENCL	2	91.0	95.2	42	10.9	0.296
1711	PLANER/ENCL	2	93.0	95.8	34	6.7	0.161
1784	CHIPPER	2	103.0	107.2	4	3.6	0.098
1636	EDGEK	2	99.5	100.2	4	3.1	0.083
1635	EDGEK	2	91.0	92.4	4	0.9	0.025
1783	CHIPPER	2	91.0	92.4	4	0.4	0.010

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1699	PLANEK	7	99.4	102.1	150	36.9	0.210
1739	DRY CHAIN	4	82.5	85.5	29	20.6	0.117
1620	HEADKIG	4	89.3	89.3	55	14.7	0.084
1664	TRIMMER	7	85.0	87.2	25	12.2	0.069
1792	POWERHOUSE	2	83.0	83.0	24	12.0	0.068
1688	KILN CHAIN	5	82.8	82.8	19	11.2	0.064
1800	FORKLIFT	1	80.0	80.0	11	11.0	0.063
1747	RAIL CAR LOAD	2	76.5	77.2	9	9.0	0.051
1810	LUMBER CARRIER	3	86.0	88.0	8	8.0	0.045
1776	CONVEYOR/GEN	1	88.0	88.0	19	8.9	0.039
1629	EDGER	4	95.3	96.4	22	6.0	0.034
1679	GREEN CHAIN	2	84.0	85.4	6	6.0	0.034
1724	MOULDER	4	90.0	90.0	8	4.0	0.023
1759	RESAW/SPECIALTY	5	84.0	91.2	4	4.0	0.023
1779	CHIPPER	4	97.0	101.5	8	3.8	0.022
1749	STALK BANDER	2	74.0	74.0	6	3.0	0.017
1785	HOG	1	92.0	99.1	25	2.1	0.012
1644	RESAW/LARGE	2	90.5	90.5	4	2.0	0.011
1610	CUT-OFF	3	96.0	98.1	27	1.6	0.009
1808	LOG CARRIER	1	90.0	90.0	1	1.0	0.006
1798	SAWMILL OFFICE	1	70.0	70.0	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

84N JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1699	PLAER	7	99.4	102.1	105	29.0	0.784
1779	CHIPPER	4	97.0	101.5	8	4.0	0.108
1629	EDGEK	4	95.3	96.4	8	4.0	0.108

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 2

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
17300	GRADER/PLANE MILL	8	92.0	92.0	57	57
13400	EDGER OPERATOR	6	93.0	93.7	48	52
21100	MILLWRIGHT/GENERAL	5	92.7	92.7	39	39
16700	PLANE OPERATOR	4	93.8	94.2	35	36
17600	DRY CHAIN PULLER	14	84.8	85.7	33	47
21900	MACHINISTS	5	90.8	93.8	31	31
13700	CHIPPER OPERATOR	2	99.4	101.2	29	34
12300	SAWYER	4	91.6	91.6	27	27
20200	FORKLIFT OPERATOR	5	89.4	89.4	25	25
22800	ELECTRICIANS	3	93.0	93.0	24	24
12800	QUADSAM TAIL SAWYER	2	97.0	97.0	24	24
14800	TRIMMER OPERATOR	2	95.0	95.0	19	19
14300	UNSCRAMBLE OPERATOR	2	93.0	93.0	16	16
10100	SAWMILL SUPERVISOR	2	92.7	92.7	15	15
24500	DILEK	2	92.7	92.7	15	15
13300	SLAB BOARD PULLER	2	92.5	93.2	15	16
16100	UNSTACKER-DRY	2	88.6	88.6	9	9
18500	RIPSAW OPERATOR	1	94.0	94.0	9	9
26100	CLEAN-UP MAN/REGULAR	1	93.0	93.0	8	8
23300	CARPENTERS	1	93.0	93.0	8	8
18600	RIPSAW OFFBEARER	1	92.0	92.0	7	7
15401	STACKER-GREEN	2	87.0	93.5	7	21
15400	STACKER-GREEN	2	86.0	93.8	6	17
15500	STICKERMAN-GREEN	2	85.2	85.2	5	5
23800	PIPE-FITTERS	1	89.3	89.3	5	5
26500	LABORER	1	89.1	89.1	5	5
17900	BANDER OPERATOR	2	85.0	85.0	4	4
20100	LUMBER CARRIER OPER	3	83.0	84.4	4	6
24800	POWERHOUSE OPERATOR	3	83.0	84.4	4	6
19600	MOULDER FEEDER	1	88.7	88.7	4	4
14500	GREEN CHAIN OPERATOR	2	84.0	85.4	4	5
15900	TRANSFER OPERATOR	2	82.4	82.4	2	2
24400	FILERS	7	78.7	83.7	2	13
16000	KILN OPERATOR	1	84.3	84.3	2	2
11401	DEBARKER OPERATOR	2	77.0	78.4	0	0
13100	GANG SAW OPERATOR	2	77.0	77.0	0	0
19700	MOULDER OFFBEARER	1	77.5	78.2	0	0
11400	DEBARKER OPERATOR	2	76.1	77.2	0	0
15100	GREEN CHAIN PULLER	2	76.0	76.0	0	0
14000	KESAW OPERATOR	2	67.0	67.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	5JUND MEAN	LEVEL M.C.	LEV. WT. MEAN	POP. M.C.
20700	RAILCAR LOADER	2	<75.0	<75.0	0	0
22300	MECHANICS	1	<75.0	<75.0	0	0
10700	POND SORTER	2	<75.0	<75.0	0	0

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242		PLANT NO. = 2		NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	M.C.	DAILY NOISE MEAN	DOSE M.C.	
13700	CHIPPER OPERATOR	2	97.7	99.2	2.93	3.56	
12800	QUADSAW TAIL SAWYER	2	97.0	97.0	2.64	2.64	
14800	TRIMMER OPERATOR	2	95.0	95.0	2.00	2.00	
18500	RIPSAW OPERATOR	1	94.0	94.0	1.74	1.74	
13400	EDGER OPERATOR	6	93.0	93.7	1.52	1.67	
14300	UNSCRAMBLE OPERATOR	2	93.0	93.0	1.52	1.52	
25100	CLEAN-UP MAN/REGULAR	1	93.0	93.0	1.52	1.52	
13300	SLAB BOARD PULLER	2	92.5	93.2	1.41	1.56	
22800	ELECTRICIANS	3	92.1	92.1	1.34	1.34	
23300	CARPENTERS	1	92.1	92.1	1.34	1.34	
17300	GRADER/PLANNER MILL	8	92.0	92.0	1.32	1.32	
18600	RIPSAW OFFBEARER	1	92.0	92.0	1.32	1.32	
10100	SAWMILL SUPERVISOR	2	91.7	91.7	1.27	1.27	
21100	MILLWRIGHT/GENERAL	5	91.7	91.7	1.27	1.27	
24500	WILEK	2	91.7	91.7	1.27	1.27	
21900	MACHINISTS	5	<90.0	<90.0	0.88	0.88	
12300	SAWYER	4	<90.0	<90.0	0.68	0.68	
26500	LABORER	1	<90.0	<90.0	0.60	0.60	
23800	PIPE-FITTERS	1	<90.0	<90.0	0.52	0.52	
19600	MOULDER FEEDER	1	<90.0	<90.0	0.40	0.40	
16700	PLANNER OPERATOR	4	<90.0	<90.0	0.26	0.24	
16100	UNSTACKER-DRY	2	<90.0	<90.0	0.23	0.23	
10700	POND SORTER	2	<90.0	<90.0	0.00	0.0	
11400	DEBARKER OPERATOR	2	<90.0	<90.0	0.00	0.0	
11401	DEBARKER OPERATOR	2	<90.0	<90.0	0.00	0.0	
13100	GANG SAW OPERATOR	2	<90.0	<90.0	0.00	0.0	
14000	RESAW OPERATOR	2	<90.0	<90.0	0.00	0.0	
14500	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.0	
15100	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00	0.0	
15400	STACKER-GREEN	2	<90.0	92.4	0.00	1.40	
15401	STACKER-GREEN	2	<90.0	95.5	0.00	2.16	
15500	STICKERMAN-GREEN	2	<90.0	<90.0	0.00	0.0	
15900	TRANSFER OPERATOR	2	<90.0	<90.0	0.00	0.0	
16000	KILN OPERATOR	1	<90.0	<90.0	0.00	0.0	
17600	DRY CHAIN PULLER	14	<90.0	<90.0	0.00	0.0	
17900	BANDER OPERATOR	2	<90.0	<90.0	0.00	0.0	

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9639

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 dBA
8-HR PERMISSIBLE LEVEL = 90.0 dBA
EXCHANGE RATE = 5 dBA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	LEVEL H.C.	DAILY NOISE DOSE MEAN	W.C.
19700	MOULDER OFFBEARER	1	<90.0	<93.0	0.00	0.0
20100	LUMBER CARRIER OPER	3	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	5	<90.0	<93.0	0.00	0.0
20700	RAILCAR LOADER	2	<90.0	<93.0	0.00	0.0
22300	MECHANICS	1	<90.0	<90.0	0.00	0.0
24400	FILERS	7	<90.0	<90.0	0.00	0.0
24800	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00	0.0

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	SJUND MEAN	LEVEL H.C.	LEV. MEAN	WT. H.C.	PUP. H.C.
173	GRADER/PLANE MILL	8	92.0	92.0	57		57
134	EDGER OPERATOR	6	93.0	93.7	48		52
211	MILLWRIGHT/GENERAL	5	92.7	92.7	39		39
167	PLANE OPERATOR	4	93.8	94.2	35		36
176	DRY CHAIN PULLER	14	84.8	85.7	33		47
219	MACHINISTS	5	90.8	90.8	31		31
137	CHIPPER OPERATOR	2	99.4	101.2	29		34
123	SAWYER	4	91.6	91.6	27		27
202	FORKLIFT OPERATOR	5	89.4	89.4	25		25
228	ELECTRICIANS	3	93.0	93.0	24		24
128	QUADSAW TAIL SAWYER	2	97.0	97.0	24		24
148	TRIMMER OPERATOR	2	95.0	95.0	19		19
143	UNSCRAMBLE OPERATOR	2	93.0	93.0	16		16
101	SAWMILL SUPERVISOR	2	92.7	92.7	15		15
245	UILEK	2	92.7	92.7	15		15
133	SLAB BOARD PULLER	2	92.5	93.2	15		16
154	STACKER-GREEN	4	86.5	94.7	13		38
161	UNSTACKER-DRY	2	86.6	85.6	9		9
185	RIPSAW OPERATOR	1	94.0	94.0	9		9
261	CLEAN-UP MAN/REGULAR	1	93.0	93.0	8		8
233	CARPENTERS	1	93.0	93.0	8		8
186	RIPSAW OFFBEARER	1	92.0	92.0	7		7
155	STICKERMAN-GREEN	2	85.2	85.2	5		5
238	PIPE-FITTERS	1	89.3	89.3	5		5
265	LABUREK	1	89.1	89.1	5		5
179	BANDER OPERATOR	2	85.0	85.0	4		4
201	LUMBER CARRIER OPER	3	83.0	84.4	4		6
248	POWERHOUSE OPERATOR	3	83.0	84.4	4		6
196	MOULDER FEEDER	1	80.7	85.7	4		4
145	GREEN CHAIN OPERATOR	2	84.0	85.4	4		5
159	TRANSFER OPERATOR	2	82.4	82.4	2		2
244	FILEKS	7	78.7	83.7	2		13
160	KILN OPERATOR	1	84.3	84.3	2		2
114	DEBARKER OPERATOR	4	76.6	77.8	0		0
131	GANG SAW OPERATOR	2	77.0	77.0	0		0
197	MOULDER OFFBEARER	1	77.5	75.2	0		0
151	GREEN CHAIN PULLER	2	76.0	76.0	0		0
140	KESAW OPERATOR	2	<75.0	<75.0	0		0
207	RAILCAR LOADER	2	<75.0	<75.0	0		0
223	MECHANICS	1	<75.0	<75.0	0		0

ENVIRONMENTAL PROTECTION AGENCY

OSN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
107	POND SURTER	2	<75.0	<75.0	0	0

TOTAL NUMBER OF PERSONNEL	114
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	112
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (M.C.)	112
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	53
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.)	57
LEVEL WEIGHTED POPULATION (MEAN)	561.5
LEVEL WEIGHTED POPULATION (M.C.)	629.3

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	M.C.	DAILY NOISE DOSE MEAN	M.C.
137	CHIPPER OPERATOR	2	97.7	97.2	2.93	3.56
128	QUADSAW TAIL SAWYER	2	97.0	97.0	2.64	2.64
148	TRIMMER OPERATOR	2	95.0	95.0	2.00	2.00
185	KIPSAW OPERATOR	1	94.0	94.0	1.74	1.74
134	EDGER OPERATOR	6	93.0	93.7	1.52	1.67
143	UNSCRAMBLE OPERATOR	2	93.0	93.0	1.52	1.52
261	CLEAN-UP MAN/REGULAR	1	93.0	93.0	1.52	1.52
133	SLAB BOARD PULLER	2	92.5	93.2	1.41	1.56
228	ELECTRICIANS	3	92.1	92.1	1.34	1.34
233	CARPENTERS	1	92.1	92.1	1.34	1.34
173	GRADER/PLANNER MILL	8	92.0	92.0	1.32	1.32
186	KIPSAW OFFBEARER	1	92.0	92.0	1.32	1.32
101	SAWMILL SUPERVISOR	2	91.7	91.7	1.27	1.27
211	MILLWRIGHT/GENERAL	5	91.7	91.7	1.27	1.27
245	DIEKER	2	91.7	91.7	1.27	1.27
219	MACHINISTS	5	<90.0	<90.0	0.68	0.68
123	SAHYER	4	<90.0	<90.0	0.68	0.68
265	LABORER	1	<90.0	<90.0	0.60	0.60
238	PIPE-FITTERS	1	<90.0	<90.0	0.52	0.52
196	MOULDER FEEDER	1	<90.0	<90.0	0.40	0.40
167	PLANNER OPERATOR	4	<90.0	<90.0	0.26	0.24
161	UNSTACKER-DRY	2	<90.0	<90.0	0.23	0.23
107	POND SORTER	2	<90.0	<90.0	0.00	0.0
114	DEBARKER OPERATOR	4	<90.0	<90.0	0.00	0.0
131	GANG SAW OPERATOR	2	<90.0	<90.0	0.00	0.0
140	RESAW OPERATOR	2	<90.0	<90.0	0.00	0.0
145	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.0
151	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00	0.0
154	STACKER-GREEN	4	<90.0	94.2	0.00	1.78
155	STICKERMAN-GREEN	2	<90.0	<90.0	0.00	0.0
159	TRANSFER OPERATOR	2	<90.0	<90.0	0.00	0.0
160	KILN OPERATOR	1	<90.0	<90.0	0.00	0.0
176	DRY CHAIN PULLER	14	<90.0	<90.0	0.00	0.0
179	BANDER OPERATOR	2	<90.0	<90.0	0.00	0.0
197	MOULDER OFFBEARER	1	<90.0	<90.0	0.00	0.0
201	LUMBER CARRIER OPER	3	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242 PLANT NO. = 2 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
202	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00	0.0
207	RAILCAR LOADER	2	<90.0	<90.0	0.00	0.0
223	MECHANICS	1	<90.0	<90.0	0.00	0.0
244	FILERS	7	<90.0	<90.0	0.00	0.0
248	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00	0.0

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TOTAL NUMBER OF PERSONNEL = 114
TOTAL NUMBER OVEREXPOSED (MEAN) = 40
TOTAL NUMBER OVEREXPOSED (M.C.) = 44

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ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1741	DRY CHAIN CONVEYR	3	85.0	87.0	29	13.2	0.118
1822	QUADSAW	1	90.0	90.0	72	11.1	0.099
1715	PLANER/ENCL	2	92.0	92.0	21	8.5	0.076
1623	HEADKIG	1	93.0	93.0	40	7.6	0.068
1638	EDGER	3	93.0	94.0	25	6.2	0.056
1702	PLANER	2	108.5	109.2	17	6.1	0.054
1690	KILN CHAIN CONVYR	3	87.0	95.5	7	5.3	0.047
1831	GANG SAW	1	77.0	77.0	51	5.1	0.046
1802	FORKLIFT	1	90.0	90.0	6	4.6	0.041
1603	DEBARKER	2	77.0	78.4	13	3.6	0.032
1654	RESAW-LARGE	1	74.0	74.0	13	3.3	0.029
1796	POWERHOUSE	1	90.0	90.0	4	3.0	0.027
1682	GREEN CHAIN CONVY	2	84.0	85.4	6	2.7	0.024
1752	STACK BANDER	1	85.0	85.0	7	2.4	0.021
1639	EDGER	2	92.5	93.2	4	2.2	0.020
1711	PLANER/ENCL	2	90.0	90.0	17	2.1	0.019
1670	TRIMMER	1	95.0	95.0	2	2.0	0.018
1672	TRIMMER	2	93.0	93.0	2	2.0	0.018
1681	GREEN CHAIN CONVY	1	76.0	76.0	2	2.0	0.018
1824	QUADSAW	1	97.0	97.0	2	2.0	0.018
1692	KILN CHAIN CONVYR	2	87.0	89.6	17	2.0	0.017
1637	EDGER	3	93.0	94.0	6	1.8	0.016
1784	CHIPPER	10	104.8	106.6	3	1.7	0.015
1691	KILN CHAIN CONVYR	1	86.0	86.0	2	1.6	0.014
1694	KILN CHAIN CONVYR	1	83.0	83.0	14	1.1	0.010
1731	MOULDER/ENCL	2	77.5	78.2	1	1.0	0.009
1853	RIPSAW-SPECIALTY	1	92.0	92.0	1	1.0	0.009
1851	RIPSAW-SPECIALTY	1	94.0	94.0	1	1.0	0.009
1734	MOULDER	1	95.0	95.0	1	0.9	0.008
1815	TRANSFER CARRIER	1	80.0	80.0	3	0.6	0.005

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	NORM. P.I.
1602	DEBARKER	2	74.0	74.0	2	0.4	0.004
1617	CUT-OFF SAW	1	75.8	75.8	11	0.3	0.002
1830	GANG SAW	1	77.0	77.0	2	0.2	0.002
1727	MOULDER/ENCL	1	81.0	81.0	1	0.1	0.001
1622	HEADKIG	1	89.0	89.0	4	0.1	0.001
1687	KILN	1	85.0	85.0	1	0.1	0.001
1783	CHIPPER	3	90.7	94.8	2	0.1	0.001
1513	WHEEL GRINDER	1	79.0	79.0	6	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1716	PLANEK/ENCL	2	92.0	92.0	13	8.2	0.205
1638	EDGER	3	93.0	94.0	19	5.8	0.146
1822	QUADSAH	1	90.0	90.0	48	4.5	0.113
1654	RESAM-LARGE	1	74.0	74.0	13	2.8	0.070
1639	EDGER	2	92.5	93.2	4	2.5	0.062
1831	GANG SAM	1	77.0	77.0	35	2.1	0.054
1670	TRIMMER	1	95.0	95.0	2	2.0	0.050
1672	TRIMMER	2	93.0	93.0	2	2.0	0.050
1824	QUADSAH	1	97.0	97.0	2	2.0	0.050
1637	EDGER	3	93.0	94.0	6	1.8	0.045
1702	PLANEK	2	108.5	109.2	5	1.5	0.038
1784	CHIPPER	10	104.8	106.8	2	1.3	0.033
1623	HEADKIG	1	93.0	93.0	22	1.0	0.026
1851	RIPSAH-SPECIALTY	1	94.0	94.0	1	1.0	0.025
1853	RIPSAH-SPECIALTY	1	92.0	92.0	1	1.0	0.025
1711	PLANEK/ENCL	2	90.0	90.0	5	0.2	0.005
1783	CHIPPER	3	90.7	94.8	2	0.2	0.005

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	NUMM. P.I.
1699	PLANEK	5	90.5	97.2	25	10.7	0.149
1739	DRY CHAIN	3	85.0	87.0	29	13.2	0.118
1819	QUADSAW	3	94.0	94.0	74	13.1	0.117
1629	EDGER	8	92.9	93.5	35	10.3	0.092
1688	KILN CHAIN	7	86.5	93.5	40	9.9	0.088
1620	HEADKIG	2	91.0	91.0	44	7.7	0.069
1828	GANG SAW	2	77.0	77.0	53	5.3	0.048
1679	GREEN CHAIN	3	81.5	82.7	8	4.7	0.042
1800	FORKLIFT	1	90.0	90.0	6	4.6	0.041
1600	DEBAKKEK	4	75.5	75.5	15	4.0	0.036
1664	TRIMMER	3	93.7	93.7	4	4.0	0.036
1644	KESAW/LAKGE	2	74.0	74.0	13	3.3	0.029
1792	POMERHUSE	1	90.5	90.0	4	3.0	0.027
1810	LUMBER CARRIER	2	83.0	84.4	3	3.0	0.027
1749	STACK BANDUK	2	81.5	81.5	7	2.4	0.021
1724	MOULDER	5	84.7	85.4	3	2.0	0.018
1848	KIP SAW/SPECIALTY	4	85.0	85.0	2	2.0	0.018
1774	CHIPPER	13	101.5	104.1	5	1.8	0.016
1813	TRANSFER CARRIER	1	80.0	80.0	3	0.6	0.009
1610	CUT-OFF	2	84.4	84.4	11	0.3	0.002
1685	KILN	1	85.0	85.0	1	0.1	0.001

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1629	EDGER	6	92.9	93.6	29	10.1	0.253
1699	PLANER	6	96.8	97.2	23	9.9	0.248
1819	QUADSAW	3	94.0	94.0	50	6.5	0.163
1664	TRIMMER	3	93.7	93.7	4	4.0	0.100
1644	RESAW/LARGE	2	74.0	74.0	13	2.8	0.070
1828	GANG SAW	2	77.0	77.0	35	2.1	0.054
1848	RIP SAW/SPECIALTY	4	88.0	88.0	2	2.0	0.050
1779	CHIPPER	13	101.5	104.1	4	1.5	0.038
1620	HEADRIG	2	91.0	91.0	22	1.0	0.026

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 3

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 9833

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	POP. M.C.
15100	GREEN CHAIN PULLER	12	95.0	95.0	119	119
16700	PLANER OPERATOR	3	106.6	106.6	74	74
17300	GRADER/PLANER MILL	6	96.0	95.0	66	66
17600	DRY CHAIN PULLER	12	88.6	92.1	55	87
20200	FORKLIFT OPERATOR	8	90.0	90.0	44	44
14800	TRIMMER OPERATOR	3	95.8	95.8	32	32
14000	RESAW OPERATOR	3	95.4	95.4	31	31
14400	LUMBER DIVERTER	3	94.8	94.8	29	29
10100	SAWMILL SUPERVISOR	3	94.3	94.3	28	28
10400	PLANER SUPERVISOR	3	94.3	94.3	28	28
21200	MILLRIGHT/SAWMILL	3	94.3	94.3	27	27
14801	TRIMMER OPERATOR	3	93.6	93.6	26	26
13400	EDGE OPERATOR	3	92.9	92.9	23	23
21300	MILLRIGHT/PLANER	3	90.6	91.4	18	21
24800	POWERHOUSE OPERATOR	3	87.8	87.8	12	12
15400	STACKER-GREEN	3	87.5	94.9	11	29
15500	STICKERMAN-GREEN	3	85.7	88.2	8	13
24400	FILEKS	4	84.0	84.0	8	8
11400	DEBARKER OPERATOR	3	85.1	85.1	7	7
26100	CLEAN-UP MAN/REGULAR	1	91.3	91.3	6	6
26500	LABUREK	1	88.4	89.7	4	5
12300	SAWYER	3	79.0	79.0	1	1
18200	TALLYMEN	3	<75.0	<75.0	0	0
20700	RAILCAR LOADER	2	<75.0	<75.0	0	0
26200	CLEAN-UP MAN/DOWN TM	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 dBA
 8-HR PERMISSIBLE LEVEL = 90.0 dBA
 EXCHANGE RATE = 5 dBA

SIC CODE = 242

PLANT NO. = J

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	M.C.
16700	PLANER OPERATOR	3	105.0	105.0	7.95	7.95
17300	GRADER/PLANER MILL	6	96.0	96.0	2.30	2.30
14800	TRIMMER OPERATOR	3	95.6	95.6	2.18	2.18
14000	RESAW OPERATOR	3	95.4	95.4	2.10	2.10
15100	GREEN CHAIN PULLER	12	95.0	95.0	2.00	2.00
14400	LUMBER DIVERTER	3	94.6	94.6	1.90	1.90
10100	SAWMILL SUPERVISOR	3	93.4	93.4	1.59	1.59
10400	PLANER SUPERVISOR	3	93.4	93.4	1.59	1.59
21200	MILLWRIGHT/SAWMILL	3	93.3	93.3	1.57	1.57
14801	TRIMMER OPERATOR	3	93.2	93.2	1.57	1.57
13400	EDGEK OPERATOR	3	92.6	92.6	1.44	1.44
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.46	0.46
21300	MILLWRIGHT/PLANER	3	<90.0	<90.0	0.76	0.92
26500	LABORER	1	<90.0	<90.0	0.45	0.55
11400	DEBARKER OPERATOR	3	<90.0	<90.0	0.00	0.0
12300	SAWYER	3	<90.0	<90.0	0.00	0.0
15400	STACKER-GREEN	3	<90.0	94.5	0.00	1.87
15500	STICKERMAN-GREEN	3	<90.0	<90.0	0.00	0.21
17600	DRY CHAIN PULLER	12	<90.0	91.7	0.00	1.26
18200	TALLYMEN	3	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	8	<90.0	<90.0	0.00	0.0
20700	RAILCAR LOADER	2	<90.0	<90.0	0.00	0.0
24400	FILERS	4	<90.0	<90.0	0.00	0.0
24800	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00	0.0
26200	CLEAN-UP MAN/DOWN TM	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = J

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
151	GREEN CHAIN PULLER	12	95.0	95.0	119	119
167	PLANER OPERATOR	3	106.6	106.6	74	74
173	GRADER/PLANER MILL	6	96.0	95.0	66	66
148	TRIMMER OPERATOR	6	94.7	94.7	58	58
176	DRY CHAIN PULLER	12	88.6	92.1	55	87
202	FORKLIFT OPERATOR	8	90.0	90.0	44	44
140	RESAM OPERATOR	3	95.4	95.4	31	31
144	LUMBER DIVERTER	3	94.8	94.6	29	29
101	SAHMILL SUPERVISOR	3	94.3	94.3	28	28
104	PLANER SUPERVISOR	3	94.3	94.3	28	28
212	MILLWRIGHT/SAHMILL	3	94.3	94.3	27	27
134	EDGER OPERATOR	3	92.9	92.9	23	23
213	MILLWRIGHT/PLANER	3	90.6	91.9	18	21
248	POWERHOUSE OPERATOR	3	87.8	87.8	12	12
154	STACKER-GREEN	3	87.5	94.9	11	29
155	STICKERMAN-GREEN	3	85.7	88.2	8	13
244	FILERS	4	84.0	84.0	8	8
114	DEBARKER OPERATOR	3	85.1	85.1	7	7
261	CLEAN-UP MAN/REGULAR	1	91.3	91.3	6	6
265	LABOREK	1	88.4	87.7	4	5
123	SAWYER	3	79.0	79.0	1	1
182	TALLYMEN	3	<75.0	<75.0	0	0
207	RAILCAR LOADER	2	<75.0	<75.0	0	0
262	CLEAN-UP MAN/DOWN TR	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

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TOTAL NUMBER OF PERSONNEL 95  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 89  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.) 84  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (MEAN) 49  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (H.C.) 64  
LEVEL WEIGHTED POPULATION (MEAN) 667.7  
LEVEL WEIGHTED POPULATION (H.C.) 728.4  
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ENVIRONMENTAL PROTECTION AGENCY

BYN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	W.C.
167	PLANER OPERATOR	3	105.0	105.0	7.95	7.95
173	GRADER/PLANER MILL	6	96.0	95.0	2.30	2.30
140	KESAW OPERATOR	3	95.4	95.4	2.10	2.10
151	GREEN CHAIN PULLER	12	95.0	95.0	2.00	2.00
144	LUMBER DIVERTER	3	94.6	94.6	1.90	1.90
148	TRIMMER OPERATOR	6	94.5	94.5	1.87	1.87
101	SAWMILL SUPERVISOR	3	93.4	93.4	1.59	1.59
104	PLANER SUPERVISOR	3	93.4	93.4	1.59	1.59
212	MILLWRIGHT/SAWMILL	3	93.3	93.3	1.57	1.57
134	EDGE OPERATOR	3	92.6	92.6	1.44	1.44
261	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.96	0.96
213	MILLWRIGHT/PLANER	3	<90.0	<90.0	0.76	0.92
265	LABORER	1	<90.0	<90.0	0.45	0.55
114	DEBARCKER OPERATOR	3	<90.0	<90.0	0.00	0.0
123	SAWYER	3	<90.0	<90.0	0.00	0.0
154	STACKER-GREEN	3	<90.0	94.5	0.00	1.87
155	STICKERMAN-GREEN	3	<90.0	<90.0	0.00	0.21
176	DRY CHAIN PULLER	12	<90.0	91.7	0.00	1.26
182	TALLYMEN	3	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	8	<90.0	<90.0	0.00	0.0
207	RAILCAR LOADER	2	<90.0	<90.0	0.00	0.0
244	FILEKS	4	<90.0	<90.0	0.00	0.0
248	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00	0.0
262	CLEAN-UP MAN/DOWN TM	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 95
TOTAL NUMBER OVEREXPOSED (MEAN) = 45
TOTAL NUMBER OVEREXPOSED (H.C.) = 60

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NU. OF PERKS.	EQUIP. CODE	NRK. MEAN TIME-HRS	NRK. STD. DEVIATION
27000	FOREMAN	1	1104	1.6	0.0
			1175	0.8	0.0
			1440	1.6	0.0
			1435	3.2	0.0
			1543	0.8	0.0
26600	HELPER	6	1380	7.2	0.0
			1485	0.8	0.0
26504	LABORER	2	1000	0.0	0.0
26503	LABORER	2	1435	4.0	0.0
			1102	0.2	0.0
			1530	0.0	0.0
			1485	0.0	0.0
			1330	1.0	0.0
26502	LABORER	2	1435	0.0	0.0
26501	LABORER	6	1435	4.0	0.0
			1430	0.8	0.0
			1104	0.8	0.0
			1485	0.8	0.0
			1334	0.0	0.0
26500	LABORER	1	1373	4.0	0.0
			1435	2.4	0.0
			1104	1.2	0.0
			1485	0.4	0.0
26410	SERVICEMAN	2	1435	0.0	0.0
26409	SERVICEMAN	4	1000	2.0	0.0
			1334	2.0	0.0
			1530	3.0	0.0
			1481	0.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

OWN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 352
 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1. NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
26406	SERVICEMAN	2	1000	3.2	0.0
			1334	1.0	0.0
			1530	1.0	0.0
			1481	0.0	0.0
			1543	0.8	0.0
26407	SERVICEMAN	2	1000	3.2	0.0
			1386	2.4	0.0
			1530	2.4	0.0
26406	SERVICEMAN	4	1102	2.4	0.0
			1154	2.4	0.0
			1194	3.2	0.0
26403	SERVICEMAN	2	1102	4.0	0.0
			1154	4.0	0.0
26404	SERVICEMAN	2	1306	4.0	0.0
			1530	3.2	0.0
26403	SERVICEMAN	2	1102	1.0	0.0
			1334	3.2	0.0
			1530	3.2	0.0
26402	SERVICEMAN	4	1193	0.0	0.0
			1188	2.0	0.0
26401	SERVICEMAN	2	1102	4.0	0.0
			1180	1.2	0.0
			1154	2.0	0.0
			1000	0.8	0.0
26400	SERVICEMAN	2	1180	4.0	0.0
			1102	4.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OSHA JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
20300	WORKSAVER OPERATOR	0	1180	1.0	0.0
			1102	4.0	0.0
			1154	1.0	0.0
20203	FORKLIFT OPERATOR	2	1338	1.2	0.0
			1440	1.2	0.0
			1430	1.2	0.0
			1490	2.0	0.0
			1485	2.4	0.0
20204	FORKLIFT OPERATOR	2	1000	3.2	0.0
			1435	0.8	0.0
			1530	2.4	0.0
			1334	0.8	0.0
			1341	0.8	0.0
20201	FORKLIFT OPERATOR	2	1000	7.2	0.0
			1435	0.8	0.0
20200	FORKLIFT OPERATOR	2	1000	2.0	0.0
			1485	2.4	0.0
			1490	2.0	0.0
			1002	1.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1683	GREEN CHAIN CONVY	1	95.0	95.0	53	16.6	0.186
1741	DRY CHAIN CONVEYR	3	89.0	92.6	19	11.7	0.131
1623	HEADKIG	1	80.0	80.0	31	7.6	0.085
1638	EDGER	1	93.0	93.0	31	7.4	0.084
1716	PLANER/ENCL	2	96.0	96.0	10	6.3	0.071
1702	PLANER	1	115.0	115.0	7	4.8	0.054
1647	RESAM-LARGE	1	96.0	96.0	13	4.8	0.054
1672	TRIMMER	1	94.0	94.0	13	3.9	0.044
1670	TRIMMER	1	96.0	96.0	7	3.0	0.034
1603	DEBARKER	1	86.0	86.0	3	2.6	0.029
1691	KILN CHAIN CONVYR	2	85.5	91.9	3	2.6	0.029
1682	GREEN CHAIN CONVY	1	80.0	80.0	38	2.1	0.024
1794	POWERHOUSE	1	91.0	91.0	3	1.5	0.017
1796	POWERHOUSE	1	87.0	87.0	3	1.5	0.017
1693	BACK. ONLY CONTR.	1	82.5	90.0	28	1.3	0.015
1711	PLANER/ENCL	1	102.0	102.0	7	1.3	0.014
1646	RESAM-LARGE	1	94.0	94.0	3	0.8	0.009
1694	KILN CHAIN CONVYR	1	83.0	83.0	12	0.4	0.004
1602	DEBARKER	1	82.0	82.0	3	0.4	0.004
1622	HEADKIG	1	75.0	75.0	3	0.4	0.004
1617	CUT-OFF SAM	1	82.0	82.0	3	0.1	0.001
1637	EDGER	1	89.0	89.0	3	0.1	0.001
1802	FORKLIFT	1	90.0	90.0	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 dBA
8-HR PERMISSIBLE LEVEL = 90.0 dBA
EXCHANGE RATE = 5 dBA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1683	GREEN CHAIN CONVY	1	95.0	95.0	24	15.3	0.339
1716	PLANER/ENCL	2	96.0	96.0	6	6.0	0.133
1638	EDGEK	1	93.0	93.0	24	5.8	0.130
1647	RESAW-LARGE	1	96.0	96.0	12	4.5	0.094
1672	TRIMMER	1	94.0	94.0	12	4.1	0.091
1670	TRIMMER	1	96.0	96.0	3	3.0	0.067
1623	HEADRIG	1	80.0	80.0	21	2.1	0.047
1711	PLANER/ENCL	1	102.0	102.0	3	1.8	0.040
1702	PLANER	1	115.0	115.0	3	1.2	0.027
1646	RESAW-LARGE	1	94.0	94.0	3	0.9	0.019
1682	GREEN CHAIN CONVY	1	80.0	80.0	9	0.3	0.00

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1674	GREEN CHAIN	2	87.5	87.5	91	18.7	0.210
1699	PLANEK	5	100.4	100.4	24	12.4	0.140
1739	DRY CHAIN	3	89.0	92.6	19	11.7	0.131
1800	FORKLIFT	1	90.0	90.0	11	8.0	0.090
1620	HEADRIG	2	77.5	77.5	34	7.9	0.089
1629	EDGEK	2	91.0	91.0	34	7.5	0.084
1664	TRIMMER	3	94.7	94.7	20	7.0	0.078
1644	RESAM/LARGE	2	95.0	95.0	16	5.5	0.062
1688	KILN CHAIN	7	84.9	91.7	43	4.3	0.048
1792	PUMPKHOUSE	2	89.0	89.0	6	3.0	0.033
1600	DEBAKKEK	2	84.0	84.0	6	2.9	0.033
1610	CUT-OFF	2	84.0	84.0	3	0.1	0.001

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9035

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 Dba
8-HR PERMISSIBLE LEVEL = 90.0 Dba
EXCHANGE RATE = 5 Dba

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PEKS.	PRIORITY INDEX	NORM. P.I.
1679	GREEN CHAIN	2	87.5	87.5	33	15.6	0.347
1699	PLANER	5	100.4	100.4	12	9.0	0.200
1664	TRIMMER	3	94.7	94.7	15	7.1	0.157
1629	EDGER	2	91.0	91.0	27	5.8	0.130
1644	RESAW/LARGE	2	95.0	95.0	15	5.3	0.119
1620	HEADRIG	2	77.5	77.5	21	2.1	0.047

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 4

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
15100	GREEN CHAIN PULLER	9	91.1	91.1	58	58
14800	TRIMMER OPERATOR	3	94.7	94.7	29	29
14400	LUMBER DIVERTER	3	94.3	94.3	27	27
10100	SAWMILL SUPERVISOR	3	94.2	94.2	27	27
21200	MILLWRIGHT/SAWMILL	4	90.5	90.5	24	24
26100	CLEAN-UP MAN/REGULAR	2	91.6	91.6	13	13
20200	FORKLIFT OPERATOR	3	88.1	88.1	12	12
21600	SHOPMAN/GENERAL	1	90.2	90.2	5	5
24400	FILEKS	5	80.8	80.8	4	4
12300	SANYER	3	80.0	80.0	1	1
13400	EDGER OPERATOR	3	<75.0	<75.0	0	0
11400	DEBAKKER OPERATOR	3	<75.0	<75.0	0	0
26200	CLEAN-UP MAN/DOHN TM	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

80N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
14800	TRIMMER OPERATOR	3	94.6	94.6	1.90	1.90
14400	LUMBER DIVERTER	3	93.4	93.4	1.60	1.60
10100	SAMMILL SUPERVISOR	3	93.0	93.0	1.52	1.52
15100	GREEN CHAIN PULLER	9	90.4	90.4	1.06	1.06
21200	MILLRIGHT/SAMMILL	4	<90.0	<90.0	0.80	0.80
26100	CLEAN-UP MAN/REGULAR	2	<90.0	<90.0	0.68	0.68
21600	SHOPMAN/GENERAL	1	<90.0	<90.0	0.61	0.61
20200	FORKLIFT OPERATOR	3	<90.0	<90.0	0.53	0.53
11400	DEBARKER OPERATOR	3	<90.0	<90.0	0.00	0.0
12300	SAWYER	3	<90.0	<90.0	0.00	0.0
13400	EDGE OPERATOR	3	<90.0	<90.0	0.00	0.0
24400	FILERS	5	<90.0	<90.0	0.00	0.0
26200	CLEAN-UP MAN/DOWN TH	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERSS.	SOUND MEAN	LEVEL W.C.	LEV. WT. MEAN	POP. W.C.
151	GREEN CHAIN PULLER	9	91.1	91.1	58	58
148	TRIMMER OPERATOR	3	94.7	94.7	29	29
144	LUMBER DIVERTER	3	94.3	94.3	27	27
101	SAWMILL SUPERVISOR	3	94.2	94.2	27	27
212	MILLRIGHT/SAWMILL	4	90.5	90.5	24	24
261	CLEAN-UP MAN/REGULAR	2	91.6	91.6	13	13
202	FORKLIFT OPERATOR	3	88.1	88.1	12	12
216	SHOPMAN/GENERAL	1	90.2	90.2	5	5
244	FILEKS	5	80.8	80.8	4	4
123	SAWYER	3	80.0	80.0	1	1
134	EDGEK OPERATOR	3	<75.0	<75.0	0	0
114	DEBARKER OPERATOR	3	<75.0	<75.0	0	0
262	CLEAN-UP MAN/DOWN TR	1	<75.0	<75.0	0	0

TOTAL NUMBER OF PERSONNEL	43
TOTAL NUMBER OF PERSONNEL WITH LEV > 75 (MEAN)	36
TOTAL NUMBER OF PERSONNEL WITH LEV > 75 (W.C.)	36
TOTAL NUMBER OF PERSONNEL WITH LEV > 90 (MEAN)	29
TOTAL NUMBER OF PERSONNEL WITH LEV > 90 (W.C.)	29
LEVEL WEIGHTED POPULATION (MEAN)	205.6
LEVEL WEIGHTED POPULATION (W.C.)	205.6

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
148	TRIMMER OPERATOR	3	94.6	94.6	1.90	1.90
144	LUMBER DIVERTER	3	93.4	93.4	1.60	1.60
101	SAWMILL SUPERVISOR	3	93.0	93.0	1.52	1.52
151	GREEN CHAIN PULLER	9	90.4	90.4	1.06	1.06
212	MILLRIGHT/SAWMILL	4	<90.0	<90.0	0.80	0.80
261	CLEAN-UP MAN/REGULAR	2	<90.0	<90.0	0.68	0.68
216	SHOPMAN/GENERAL	1	<90.0	<90.0	0.61	0.61
202	FORKLIFT OPERATOR	3	<90.0	<90.0	0.53	0.53
114	DEBARKER OPERATOR	3	<90.0	<90.0	0.00	0.0
123	SAHYER	3	<90.0	<90.0	0.00	0.0
134	EDGER OPERATOR	3	<90.0	<90.0	0.00	0.0
244	FILERS	5	<90.0	<90.0	0.00	0.0
262	CLEAN-UP MAN/WORKM TM	1	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL	=	43
TOTAL NUMBER OVEREXPOSED (MEAN)	=	18
TOTAL NUMBER OVEREXPOSED (M.C.)	=	16

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NO. OF P.I.
1682	GREEN CHAIN CONVY	1	92.0	92.0	46	12.8	0.357
1623	HEADKIG	1	81.0	81.0	33	10.4	0.290
1672	TRIMMER	1	95.0	95.0	42	4.9	0.136
1638	EDGER	1	72.0	72.0	30	4.2	0.117
1683	GREEN CHAIN CONVY	1	95.0	95.0	51	3.0	0.083
1622	HEADKIG	1	76.0	76.0	3	0.4	0.010
1647	KESAM-LARGE	1	93.0	93.0	4	0.2	0.006

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1682	GREEN CHAIN CONVY	1	92.0	92.0	15	4.4	0.520
1672	TRIMMER	1	95.0	95.0	9	3.4	0.188
1683	GREEN CHAIN CONVY	1	95.0	95.0	3	3.0	0.167
1623	HEADRIC	1	81.0	81.0	6	1.3	0.075
1638	EDGER	1	72.0	72.0	6	0.9	0.050

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PEKS.	PRIORITY INDEX	NORM. P.I.
1679	GREEN CHAIN	2	93.5	93.5	77	15.9	0.440
1620	HEADKIG	2	78.5	78.5	36	10.8	0.300
1664	TRIMMER	2	94.0	94.0	42	4.9	0.136
1629	EDGER	2	70.5	70.5	30	4.2	0.117
1644	RESAW/LARGE	1	93.0	93.0	4	0.2	0.006

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1679	GREEN CHAIN	2	93.5	93.5	18	12.4	0.657
1664	TRIMMER	2	94.0	94.0	9	3.4	0.188
1620	HEADRIG	2	78.5	78.5	6	1.4	0.075
1624	EDGEK	2	70.5	70.5	6	0.9	0.050

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 5

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. HT. MEAN	PUP. M.C.
16800	PLANER SET-UP MAN	1	105.1	105.1	22	22
17600	DRY CHAIN PULLER	4	87.9	87.9	16	16
21100	MILLWRIGHT/GENERAL	2	93.2	93.2	16	16
13400	EDGER OPERATOR	1	100.6	100.6	16	16
17300	GRADER/PLANER MILL	2	93.0	93.0	16	16
13800	HOG OPERATOR	1	99.0	99.0	14	14
16700	PLANER OPERATOR	1	95.9	97.3	10	12
20200	FORKLIFT OPERATOR	5	84.1	88.1	10	21
14400	LUMBER DIVENTER	1	95.4	97.2	10	12
14801	TRIMMER OPERATOR	1	95.1	97.0	10	12
13700	CHIPPER OPERATOR	1	94.9	100.9	9	16
16200	UNSTACKER PULLER	3	86.0	88.8	9	14
14800	TRIMMER OPERATOR	1	93.4	94.0	8	9
22800	ELECTRICIANS	1	92.7	92.7	7	7
15100	GREEN CHAIN PULLER	4	83.5	85.2	7	10
14000	RESAW OPERATOR	1	91.4	91.4	6	6
18200	TALLYMEN	1	90.9	93.9	6	6
11400	DEBARCKER OPERATOR	1	90.4	93.4	5	5
15500	STICKERMAN-GREEN	1	89.1	89.7	4	5
15400	STACKER-GREEN	1	89.0	94.7	4	9
26100	CLEAN-UP MAN/REGULAR	1	86.4	86.4	3	3
16100	UNSTACKER-DRY	1	86.0	88.8	3	4
16300	GRADER/SURTING CHAIN	1	85.5	85.9	2	2
16000	KILN OPERATOR	1	82.0	89.6	1	5
25500	LABORER	1	81.6	81.6	1	1
20100	LUMBER CARRIER OPER	1	76.4	75.4	0	0
12300	SAWYER	1	75.7	75.7	0	0
12700	TAIL SAWYER	1	75.7	75.7	0	0
11100	LOG CARRIER OPER	1	<75.0	<75.0	0	0

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 dBA
 8-HR PERMISSIBLE LEVEL = 90.0 dBA
 EXCHANGE RATE = 5 dBA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	DAILY NOISE DOSE MEAN	W.C.
16800	PLANER SET-UP MAN	1	101.5	101.5	4.95	4.95
13400	EDGER OPERATOR	1	100.5	100.5	4.31	4.31
13800	HOG OPERATOR	1	97.0	97.0	2.64	2.64
16700	PLANER OPERATOR	1	95.6	97.2	2.25	2.72
14400	LUMBER DIVERTER	1	95.4	97.2	2.11	2.70
14801	TRIMMER OPERATOR	1	95.0	95.9	2.01	2.00
14800	TRIMMER OPERATOR	1	93.4	94.0	1.59	1.74
17300	GRADER/PLANER MILL	2	93.0	93.0	1.52	1.52
13700	CHIPPER OPERATOR	1	92.5	95.9	1.41	3.42
18200	TALLYMEN	1	90.9	90.9	1.14	1.14
14000	RESAM OPERATOR	1	90.8	90.8	1.12	1.12
21100	MILLWRIGHT/GENERAL	2	90.7	90.7	1.11	1.11
22800	ELECTRICIANS	1	90.7	90.7	1.11	1.11
11400	DEBARKER OPERATOR	1	<90.0	<90.0	0.39	0.39
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26	0.26
17600	DRY CHAIN PULLER	4	<90.0	<90.0	0.22	0.22
11100	LOG CARRIER OPER	1	<90.0	<90.0	0.00	0.0
12300	SAWYER	1	<90.0	<90.0	0.00	0.0
12700	TAIL SAWYER	1	<90.0	<90.0	0.00	0.0
15100	GREEN CHAIN PULLER	4	<90.0	<90.0	0.00	0.0
15400	STACKER-GREEN	1	<90.0	94.7	0.00	1.91
15500	STICKERMAN-GREEN	1	<90.0	<90.0	0.00	0.77
16000	KILN OPERATOR	1	<90.0	<90.0	0.00	0.87
16100	UNSTACKER-DRY	1	<90.0	<90.0	0.00	0.53
16200	UNSTACKER PULLER	3	<90.0	<90.0	0.00	0.53
16300	GRADER/SURTING CHAIN	1	<90.0	<90.0	0.00	0.21
20100	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00	0.64
26500	LABORER	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. MEAN	HT. PUP. M.C.
168	PLANER SET-UP MAN	1	105.1	105.1	22	22
148	TRIMMER OPERATOR	2	94.2	95.5	18	21
176	DRY CHAIN PULLER	4	87.9	87.9	16	16
211	MILLWRIGHT/GENERAL	2	93.2	93.2	16	16
134	EDGER OPERATOR	1	100.6	100.6	16	16
173	GRADER/PLANER MILL	2	93.0	93.0	16	16
138	HOG OPERATOR	1	99.0	99.0	14	14
167	PLANER OPERATOR	1	95.9	97.3	10	12
202	FORKLIFT OPERATOR	5	84.1	88.1	10	21
144	LUMBER DIVERTER	1	95.4	97.2	10	12
137	CHIPPER OPERATOR	1	94.9	100.9	9	16
162	UNSTACKER PULLER	3	86.0	85.8	9	14
228	ELECTRICIANS	1	92.7	92.7	7	7
151	GREEN CHAIN PULLER	4	83.5	85.2	7	10
140	RESAW OPERATOR	1	91.4	91.4	6	6
182	TALLYMEN	1	90.9	90.9	6	6
114	DEBAKKER OPERATOR	1	90.4	90.4	5	5
155	STICKERMAN-GREEN	1	89.1	89.7	4	5
154	STACKER-GREEN	1	89.0	94.7	4	9
261	CLEAN-UP MAN/REGULAR	1	88.4	85.4	3	3
161	UNSTACKER-DRY	1	88.0	88.8	3	4
163	GRADER/SORTING CHAIN	1	87.5	87.9	2	2
160	KILN OPERATOR	1	82.0	84.6	1	5
265	LABORER	1	81.8	81.6	1	1
201	LUMBER CARRIER OPER	1	78.4	75.4	0	0
123	SAWYER	1	75.7	75.7	0	0
127	TAIL SAWYER	1	75.7	75.7	0	0
111	LOG CARRIER OPER	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

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TOTAL NUMBER OF PERSONNEL 43  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 42  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.) 42  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 10  
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.) 17  
LEVEL WEIGHTED POPULATION (MEAN) 227.9  
LEVEL WEIGHTED POPULATION (W.C.) 271.6  
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ENVIRONMENTAL PROTECTION AGENCY

EPM JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
168	PLANE SET-UP MAN	1	101.5	101.5	4.95	4.95
134	EDGER OPERATOR	1	100.5	100.5	4.31	4.31
138	HOG OPERATOR	1	97.0	97.0	2.64	2.64
167	PLANE OPERATOR	1	95.8	97.2	2.25	2.72
144	LUMBER DIVERTER	1	95.4	97.2	2.11	2.70
148	TRIMMER OPERATOR	2	94.2	95.6	1.80	2.17
173	GRADER/PLANE MILL	2	93.0	93.0	1.52	1.52
137	CHIPPER OPERATOR	1	92.5	95.9	1.41	3.42
182	TALLYMEN	1	90.9	90.9	1.14	1.14
140	RESAW OPERATOR	1	90.8	90.8	1.12	1.12
211	MILLWRIGHT/GENERAL	2	90.7	90.7	1.11	1.11
228	ELECTRICIANS	1	90.7	90.7	1.11	1.11
114	DEBARKER OPERATOR	1	<90.0	<90.0	0.39	0.39
261	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26	0.26
176	DRY CHAIN PULLER	4	<90.0	<90.0	0.22	0.22
111	LOG CARRIER OPER	1	<90.0	<90.0	0.00	0.0
123	SAWYER	1	<90.0	<90.0	0.00	0.0
127	TAIL SAWYER	1	<90.0	<90.0	0.00	0.0
151	GREEN CHAIN PULLER	4	<90.0	<90.0	0.00	0.0
154	STACKER-GREEN	1	<90.0	94.7	0.00	1.91
155	STICKERMAN-GREEN	1	<90.0	<90.0	0.00	0.77
160	KILN OPERATOR	1	<90.0	<90.0	0.00	0.87
161	UNSTACKER-DRY	1	<90.0	<90.0	0.00	0.53
162	UNSTACKER PULLER	3	<90.0	<90.0	0.00	0.53
163	GRADER/SURTING CHAIN	1	<90.0	<90.0	0.00	0.21
201	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00	0.64
265	LABORER	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 13
TOTAL NUMBER OVEREXPOSED (MEAN) = 15
TOTAL NUMBER OVEREXPOSED (W.C.) = 16

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1802	FORKLIFT	2	86.5	90.0	8	5.2	0.123
1682	GREEN CHAIN CONVY	4	83.5	85.2	5	4.5	0.107
1636	EDGEK	1	101.0	101.0	13	3.8	0.090
1692	KILN CHAIN CONVYR	2	88.5	92.0	7	3.5	0.082
1623	HEADKIG	1	76.0	76.0	14	2.8	0.067
1742	DRY CHAIN CONVEYR	1	88.9	86.9	4	2.5	0.060
1740	BACK/DRY CHAIN	1	82.8	82.8	6	2.2	0.052
1716	PLANER/ENCL	1	93.0	93.0	2	2.0	0.048
1690	KILN CHAIN CONVYR	2	89.0	94.7	4	1.8	0.042
1647	RESAW-LARGE	1	92.0	92.0	7	1.7	0.042
1665	BACK/TRIMMER	1	90.6	90.6	5	1.7	0.040
1702	PLANER	1	112.0	112.0	6	1.6	0.039
1670	TRIMMER	2	93.5	94.2	10	1.2	0.028
1687	BACK. ONLY CONTR.	0	83.0	90.6	1	1.0	0.024
1790	HOG	1	102.0	102.0	1	1.0	0.024
1711	PLANER/ENCL	2	96.0	97.4	1	1.0	0.023
1784	CHIPPER	2	97.5	103.9	1	0.9	0.022
1695	KILN CHAIN CONVYR	1	91.0	91.0	1	0.8	0.019
1619	CUT-OFF SAW	1	95.0	95.0	5	0.5	0.012
1603	DEBARCKER	1	88.0	88.0	1	0.4	0.010
1691	KILN CHAIN CONVYR	2	87.5	93.9	1	0.2	0.004
1622	HEADKIG	1	73.0	73.0	2	0.2	0.004
1713	BACK. ONLY CONTR.	0	85.0	85.0	2	0.2	0.004
1669	TRIMMER	2	92.0	94.8	2	0.1	0.003
1618	CUT-OFF SAW	1	94.0	94.0	1	0.1	0.003
1783	CHIPPER	2	87.0	89.8	4	0.1	0.003
1646	RESAW-LARGE	1	85.0	85.0	1	0.0	0.001
1635	EDGEK	1	94.0	94.0	1	0.0	0.001
1710	PLANER/ENCL	1	92.0	92.0	1	0.0	0.000
1681	BACK. ONLY CONTR.	0	79.0	79.0	1	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1602	DEBARKER	1	66.0	66.0	1	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1636	EDGER	1	101.0	101.0	10	3.8	0.255
1716	PLANER/ENCL	1	93.0	93.0	2	2.0	0.133
1647	RESAW-LARGE	1	92.0	92.0	4	1.7	0.114
1670	TRIMMER	2	93.5	94.2	7	1.2	0.078
1623	HEADRIC	1	76.0	76.0	9	1.0	0.066
1784	CHIPPER	2	97.5	103.9	1	1.0	0.067
1790	HOG	1	102.0	102.0	1	1.0	0.067
1702	PLANER	1	112.0	112.0	2	1.0	0.065
1711	PLANER/ENCL	2	96.0	97.4	1	1.0	0.065
1695	KILN CHAIN CONVYR	1	91.0	91.0	1	0.8	0.054
1665	BACK/TRIMMER	1	90.6	90.6	1	0.2	0.013
1664	TRIMMER	2	92.0	94.8	2	0.1	0.010
1614	CUT-OFF SAW	1	95.0	95.0	4	0.1	0.005
1635	EDGER	1	94.0	94.0	1	0.0	0.003
1710	PLANER/ENCL	1	92.0	92.0	1	0.0	0.002
1713	BACK. ONLY CONTR.	0	85.0	85.0	1	0.0	0.002

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = >

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERKS.	PRIORITY INDEX	NUM. P.I.
1688	KILN CHAIN	12	87.2	92.0	13	5.2	0.148
1800	FORKLIFT	2	86.5	90.0	8	5.2	0.123
1699	PLANER	5	97.0	99.8	12	4.8	0.114
1739	DRY CHAIN	2	84.8	84.8	10	4.7	0.112
1679	GREEN CHAIN	6	87.5	90.2	6	4.5	0.108
1629	EDGER	2	97.5	97.5	14	3.8	0.090
1620	HEADRIC	4	87.5	87.5	16	3.0	0.071
1664	TRIMMER	5	92.3	94.4	17	3.0	0.071
1644	RESAW/LAKE	2	88.5	88.5	8	1.8	0.042
1779	CHIPPER	4	92.3	97.2	5	1.0	0.024
1785	HOG	2	102.0	102.0	1	1.0	0.024
1810	LUMBER CARRIER	1	83.0	83.0	1	1.0	0.004
1685	KILN	0	0.0	-53.0	1	1.0	0.0
1610	CUT-OFF	2	94.5	94.5	0	0.5	0.015
1600	DEBAKKEK	2	87.0	87.0	2	0.5	0.011

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1699	PLANER	5	97.5	99.8	7	4.0	0.267
1629	EDGER	2	97.5	97.5	11	3.4	0.258
1644	RESAW/LARGE	2	88.5	88.5	5	1.7	0.114
1664	TRIMMER	5	92.3	94.4	10	1.5	0.101
1620	HEADRIG	4	87.5	87.5	9	1.0	0.068
1785	HOG	2	102.0	102.0	1	1.0	0.067
1774	CHIPPER	4	92.3	97.2	2	1.0	0.067
1688	KILN CHAIN	12	57.2	92.0	1	0.8	0.054
1610	CUT-OFF	2	94.5	94.5	4	0.1	0.005

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SJUND MEAN	LEVEL W.C.	LEV. MT. MEAN	PUP. W.C.
21100	MILLWRIGHT/GENERAL	4	94.9	94.9	39	39
12700	TAIL SAWYER	2	100.8	100.8	33	33
16800	PLANEK SET-UP MAN	2	100.0	100.0	31	31
16700	PLANEK OPERATOR	4	92.2	95.7	29	42
13700	CHIPPER OPERATOR	2	98.6	103.3	27	40
17300	GRADER/PLANEK MILL	4	91.5	92.2	27	29
24500	OILER	2	94.9	94.9	19	19
26501	LABORER	2	94.6	94.6	19	19
26601	HELPER	2	94.6	94.6	19	19
22800	ELECTRICIANS	2	94.5	94.5	18	18
20200	FURKLIFT OPERATOR	7	85.0	85.0	17	17
13800	HOG OPERATOR	2	92.8	92.8	15	15
14800	TRIMMER OPERATOR	4	97.4	93.4	15	33
16100	UNSTACKER-DRY	2	90.0	97.1	11	24
16300	GRADER/SORTING CHAIN	2	90.0	97.1	11	24
17900	BANDER OPERATOR	2	89.3	94.6	10	19
23300	CARPENTERS	1	94.5	94.5	9	9
26602	HELPER	1	94.5	94.5	9	9
15500	STICKERMAN-GREEN	2	85.1	93.8	5	17
18201	TALLYMEN	2	85.0	85.0	4	4
14500	GREEN CHAIN OPERATOR	2	85.0	85.0	4	4
15400	STACKER-GREEN	2	84.7	91.2	4	13
16000	KILN OPERATOR	2	83.9	83.9	3	3
12300	SAWYER	2	83.9	83.9	3	3
16200	UNSTACKER PULLER	6	80.0	82.8	3	9
17600	DRY CHAIN PULLER	6	80.0	82.8	3	9
24400	FILERS	3	81.0	82.4	2	4
13400	EDGER OPERATOR	2	81.6	81.6	2	2
13100	GANG SAW OPERATOR	2	78.8	79.8	0	0
21900	MACHINISTS	1	79.0	79.0	0	0
11400	DEBARKER OPERATOR	2	77.4	77.4	0	0
16200	TALLYMEN	3	<75.0	<75.0	0	0
21700	WELDER	1	<75.0	<75.0	0	0
26500	LABORER	2	<75.0	<75.0	0	0
26600	HELPER	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	DAILY NOISE DOSE MEAN	M.C.
12700	TAIL SAWYER	2	100.8	100.8	4.47	4.47
13700	CHIPPER OPERATOR	2	98.0	102.4	3.03	5.57
21100	MILLWRIGHT/GENERAL	4	94.4	94.4	1.84	1.84
24500	OILER	2	94.4	94.4	1.84	1.84
22800	ELECTRICIANS	2	93.4	93.4	1.61	1.61
23300	CARPENTERS	1	93.4	93.4	1.61	1.61
26501	LABORER	2	93.4	93.4	1.61	1.61
26601	HELPER	2	93.4	93.4	1.61	1.61
26602	HELPER	1	93.4	93.4	1.61	1.61
13800	HOG OPERATOR	2	92.7	92.7	1.44	1.44
16700	PLANER OPERATOR	4	92.1	92.5	1.33	2.14
17300	GRADER/PLANER MILL	4	91.5	92.2	1.23	1.36
16800	PLANER SET-UP MAN	2	91.4	91.4	1.21	1.21
17900	BANDER OPERATOR	2	<90.0	91.1	0.98	1.16
11400	DEBANKER OPERATOR	2	<90.0	<90.0	0.00	0.0
12300	SAWYER	2	<90.0	<90.0	0.00	0.0
13100	GANG SAW OPERATOR	2	<90.0	<90.0	0.00	0.0
13400	EDGER OPERATOR	2	<90.0	<90.0	0.00	0.0
14500	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.0
14800	TRIMMER OPERATOR	4	<90.0	92.9	0.00	1.50
15400	STACKER-GREEN	2	<90.0	90.5	0.00	1.07
15500	STICKERMAN-GREEN	2	<90.0	93.1	0.00	1.53
16000	KILN OPERATOR	2	<90.0	<90.0	0.00	0.0
16100	UNSTACKER-DRY	2	<90.0	97.1	0.00	2.67
16200	UNSTACKER PULLER	6	<90.0	<90.0	0.00	0.0
16300	GRADER/SURTING CHAIN	2	<90.0	97.1	0.00	2.67
17600	DRY CHAIN PULLER	6	<90.0	<90.0	0.00	0.0
18200	TALLYMEN	3	<90.0	<90.0	0.00	0.0
18201	TALLYMEN	2	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.0
21700	WELDER	1	<90.0	<90.0	0.00	0.0
21900	MACHINISTS	1	<90.0	<90.0	0.00	0.0
24400	FILERS	3	<90.0	<90.0	0.00	0.0
26500	LABORER	2	<90.0	<90.0	0.00	0.0
26600	HELPER	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL W.C.	LEV. MEAN	WT. PUP. W.C.
211	MILLWRIGHT/GENERAL	4	94.9	94.9	39	39
127	TAIL SAWYER	2	100.8	100.8	33	33
168	PLANER SET-UP MAN	2	100.0	100.0	31	31
167	PLANER OPERATOR	4	92.2	95.7	29	42
266	HELPER	4	87.1	87.1	28	28
137	CHIPPER OPERATOR	2	98.6	103.3	27	40
173	GRADER/PLANER MILL	4	91.5	92.2	27	29
245	OILER	2	94.9	94.9	19	19
265	LABORER	4	79.8	74.8	19	19
228	ELECTRICIANS	2	94.5	94.5	18	18
202	FORKLIFT OPERATOR	7	85.0	85.0	17	17
138	HOG OPERATOR	2	92.8	92.8	15	15
148	TRIMMER OPERATOR	4	87.4	93.4	15	33
161	UNSTACKER-DRY	2	90.0	97.1	11	24
163	GRADER/SURTING CHAIN	2	90.0	97.1	11	24
179	BANDER OPERATOR	2	89.3	94.6	10	19
233	CARPENTERS	1	94.5	94.5	9	9
155	STICKERMAN-GREEN	2	85.1	93.8	5	17
182	TALLYMEN	5	<75.0	<75.0	4	4
145	GREEN CHAIN OPERATOR	2	85.0	85.0	4	4
154	STACKER-GREEN	2	84.7	91.2	4	13
160	KILN OPERATOR	2	83.9	83.9	3	3
123	SAWYER	2	83.9	83.9	3	3
162	UNSTACKER PULLER	6	80.0	82.8	3	9
176	DRY CHAIN PULLER	6	80.0	82.8	3	9
244	FILEKS	3	81.0	82.4	2	4
134	EDGER OPERATOR	2	81.6	81.6	2	2
131	GANG SAW OPERATOR	2	78.8	78.8	0	0
219	MACHINISTS	1	74.0	79.0	0	0
114	DEBARCKER OPERATOR	2	77.4	77.4	0	0
217	HELDER	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL 80
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 81
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (M.C.) 81
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 30
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.) 44
LEVEL WEIGHTED POPULATION (MEAN) 407.5
LEVEL WEIGHTED POPULATION (M.C.) 522.4

ENVIRONMENTAL PROTECTION AGENCY

BAM JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	W.C.	MEAN	W.C.
127	TAIL SAWYER	2	100.8	100.8	4.47	4.47
137	CHIPPER OPERATOR	2	98.0	102.4	3.03	3.57
211	MILLWRIGHT/GENERAL	4	94.4	94.4	1.84	1.84
245	OILER	2	94.4	94.4	1.84	1.84
228	ELECTRICIANS	2	93.4	93.4	1.61	1.61
233	CARPENTERS	1	93.4	93.4	1.61	1.61
138	HOG OPERATOR	2	92.7	92.7	1.44	1.44
167	PLANER OPERATOR	4	92.1	95.5	1.33	2.14
173	GRADER/PLANER MILL	4	91.5	92.2	1.23	1.36
168	PLANER SET-UP MAN	2	91.4	91.4	1.21	1.21
260	HELPER	4	91.4	91.4	1.21	1.21
265	LABORER	4	<90.0	<90.0	0.81	0.81
179	BANDER OPERATOR	2	<90.0	91.1	0.58	1.16
114	DEBARKER OPERATOR	2	<90.0	<90.0	0.00	0.0
123	SAWYER	2	<90.0	<90.0	0.00	0.0
131	GANG SAW OPERATOR	2	<90.0	<90.0	0.00	0.0
134	EDGE OPERATOR	2	<90.0	<90.0	0.00	0.0
145	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.0
148	TRIMMER OPERATOR	4	<90.0	92.9	0.00	1.50
154	STACKER-GREEN	2	<90.0	90.5	0.00	1.07
155	STICKERMAN-GREEN	2	<90.0	93.1	0.00	1.53
160	KILN OPERATOR	2	<90.0	<90.0	0.00	0.0
161	UNSTACKER-DRY	2	<90.0	97.1	0.00	2.67
162	UNSTACKER PULLER	6	<90.0	<90.0	0.00	0.0
163	GRADER/SORTING CHAIN	2	<90.0	97.1	0.00	2.67
176	DRY CHAIN PULLER	6	<90.0	<90.0	0.00	0.0
182	TALLYMEN	5	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.0
217	WELDER	1	<90.0	<90.0	0.00	0.0
219	MACHINISTS	1	<90.0	<90.0	0.00	0.0
244	FILENS	3	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 08
TOTAL NUMBER OVEREXPOSED (MEAN) = 30
TOTAL NUMBER OVEREXPOSED (M.C.) = 44

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NJ DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PEKS.	PRIORITY INDEX	NUM. P.I.
1693	KILN CHAIN CONVYR	2	80.0	82.8	14	12.0	0.148
1831	GANG SAW	1	79.0	79.0	39	9.3	0.115
1802	FORKLIFT	2	85.0	85.0	9	8.8	0.109
1670	TRIMMER	2	87.5	93.9	46	8.9	0.085
1702	PLANER	1	113.0	113.0	31	4.7	0.058
1711	PLANER/ENCL	2	92.5	96.0	20	4.2	0.052
1623	HEADRIG	1	84.0	84.0	25	4.1	0.051
1692	KILN CHAIN CONVYR	2	90.0	97.1	6	4.0	0.049
1716	PLANER/ENCL	2	91.5	92.2	4	4.0	0.049
1638	EDGEK	1	82.0	82.0	17	3.1	0.038
1695	KILN CHAIN CONVYR	1	85.0	85.0	2	2.0	0.025
1682	GREEN CHAIN CONVY	1	86.5	86.5	2	2.0	0.025
1627	HEADRIG	1	101.0	101.0	2	2.0	0.024
1784	CHIPPER	2	100.5	105.4	2	1.9	0.023
1691	KILN CHAIN CONVYR	2	85.5	94.7	2	1.7	0.022
1690	KILN CHAIN CONVYR	2	85.0	92.1	2	1.7	0.021
1603	DEBAKKER	1	78.0	78.0	2	1.7	0.021
1658	RESAW-LARGE	1	74.0	74.0	14	1.5	0.019
1788	HOG/ENCL	1	94.0	94.0	2	1.3	0.016
1787	HOG/ENCL	1	91.0	91.0	2	0.7	0.008
1680	BACK/GREEN CHAIN	1	83.1	83.1	4	0.5	0.007
1669	TRIMMER	2	86.5	91.4	4	0.4	0.005
1686	BACK/KILNECNTL RM	1	83.7	83.7	2	0.2	0.002
1752	STACK BANDER	1	83.0	83.0	2	0.2	0.002
1617	CUT-OFF SAW	1	80.0	80.0	2	0.2	0.002
1710	PLANER/ENCL	1	91.3	91.3	4	0.2	0.002
1783	CHIPPER	2	91.0	92.4	2	0.1	0.002
1602	DEBAKKER	1	75.0	75.0	2	0.1	0.001
1637	EDGEK	1	75.0	75.0	2	0.0	0.001
1622	HEADRIG	1	80.0	80.0	2	0.0	0.001

ENVIRONMENTAL PROTECTION AGENCY

NON JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1830	GANG SAW	1	74.0	74.0	2	0.0	0.000
1626	HEADRIG	1	95.0	95.0	2	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUMM. P.I.
1831	GANG SAW	1	79.0	79.0	28	5.1	0.109
1711	PLANER/ENCL	2	92.5	90.0	18	4.1	0.137
1716	PLANER/ENCL	2	91.5	92.2	4	4.0	0.133
1702	PLANER	1	113.0	113.0	22	2.9	0.096
1670	TRIMMER	2	87.5	93.9	34	2.7	0.089
1623	HEADKIG	1	84.0	84.0	14	2.0	0.066
1627	HEADKIG	1	101.0	101.0	2	2.0	0.065
1784	CHIPPER	2	100.5	105.4	2	1.7	0.057
1788	HOG/ENCL	1	94.0	94.0	2	1.2	0.040
1658	RESAW-LARGE	1	74.0	74.0	14	1.1	0.038
1638	EDGEK	1	82.0	82.0	14	1.1	0.036
1787	HOG/ENCL	1	91.0	91.0	2	0.8	0.027
1783	CHIPPER	2	91.0	92.4	2	0.3	0.010
1710	PLANER/ENCL	1	91.3	91.3	4	0.2	0.006
1626	HEADKIG	1	95.0	95.0	2	0.0	0.001

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1688	KILN CHAIN	10	85.1	92.0	26	21.5	0.265
1699	PLANEK	6	95.4	97.9	59	13.0	0.161
1828	GANG SAW	2	76.5	76.5	41	4.4	0.116
1800	FORKLIFT	2	85.0	85.0	9	8.8	0.109
1684	TRIMMER	4	87.0	92.7	50	7.3	0.040
1620	HEADRIG	4	90.0	90.0	31	6.1	0.076
1629	EDGER	2	78.5	76.5	19	3.2	0.039
1679	GREEN CHAIN	2	84.8	84.8	6	2.5	0.031
1785	HOG	2	92.5	92.5	4	2.0	0.025
1779	CHIPPER	4	95.8	99.4	4	2.0	0.025
1600	DEBAKKER	2	76.5	76.5	4	1.8	0.022
1644	MESAN/LARGE	2	74.0	74.0	14	1.5	0.019
1776	CONVEYOR/GEN	3	87.0	91.0	19	1.3	0.015
1685	KILN	2	81.8	81.8	2	0.2	0.002
1749	STACK SANDER	2	83.0	83.0	2	0.2	0.002
1610	CUT-OFF	2	74.5	74.5	2	0.2	0.002

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NO. OF P.I.
1699	PLANER	6	95.4	97.9	48	11.2	0.372
1828	GANG SAW	2	76.5	76.5	28	5.1	0.169
1620	HEADRIG	4	40.0	40.0	18	4.0	0.133
1664	TRIMMER	4	47.0	42.7	34	2.7	0.089
1785	HOG	2	42.5	42.5	4	2.0	0.067
1779	CHIPPER	4	45.8	49.4	4	2.0	0.067
1644	RESAW/LARGE	2	74.0	74.0	14	1.1	0.038
1629	EDGER	2	78.5	78.5	14	1.1	0.036
1776	CONVEYOR/GEN	3	67.0	41.0	14	0.9	0.029

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

OSM JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PWP. M.C.
21100	MILLRIGHT/GENERAL	40	89.9	89.9	222	222
22800	ELECTRICIANS	30	89.9	89.9	166	166
15900	TRANSFER OPERATOR	3	100.5	100.5	48	48
16800	PLANER SET-UP MAN	2	103.7	104.4	41	43
13400	EDGE OPERATOR	4	94.9	94.9	39	39
17601	DRY CHAIN PULLER	10	86.4	88.5	32	45
13801	HOG OPERATOR	2	97.9	97.9	26	26
17600	DRY CHAIN PULLER	8	86.0	86.0	24	24
20100	LUMBER CARRIER OPER	7	86.5	86.5	22	22
17300	GRADER/PLANER MILL	9	85.0	85.0	22	22
16700	PLANER OPERATOR	2	94.4	97.7	18	25
20200	FORKLIFT OPERATOR	7	85.1	85.1	17	17
14300	UNSCRAMBLE OPERATOR	2	91.3	94.8	13	19
14000	RESAW OPERATOR	2	90.6	90.6	12	12
26600	HELPER	6	83.6	83.6	11	11
18200	TALLYMEN	4	85.0	85.0	9	9
12000	CUT-OFF SAW OPERATOR	2	88.3	88.3	8	8
13800	HOG OPERATOR	1	92.8	92.8	7	7
15400	STACKER-GREEN	4	83.8	83.8	7	7
19000	SPECIALTY RESAW OPER	1	92.0	92.0	7	7
19100	SPECIALTY RESAW OFFB	1	92.0	92.0	7	7
15500	STICKERMAN-GREEN	4	83.0	83.0	6	6
12300	SAHYEK	4	82.4	81.7	5	7
21900	MACHINISTS	8	<75.0	<75.0	0	0
14800	TRIMMER OPERATOR	4	<75.0	84.4	0	8
11400	DEBARKER OPERATOR	2	<75.0	<75.0	0	0
22300	MECHANICS	10	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4633

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA

8-HR PERMISSIBLE LEVEL = 90.0 DBA

EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	DAILY NOISE DOSE MEAN	W.C.
15900	TRANSFER OPERATOR	3	99.4	99.4	3.09	3.09
16800	PLANEK SET-UP MAN	2	97.5	96.0	2.81	3.01
13801	HOG OPERATOR	2	94.9	94.9	1.97	1.97
16700	PLANEK OPERATOR	2	94.4	97.7	1.83	2.91
13400	EDGEK OPERATOR	4	94.3	94.3	1.82	1.82
19000	SPECIALTY RESAW OPER	1	91.4	91.4	1.22	1.22
19100	SPECIALTY RESAW OFFB	1	91.4	91.4	1.22	1.22
14300	UNSCRAMBLE OPERATOR	2	90.9	94.4	1.13	1.85
13800	HOG OPERATOR	1	90.9	90.9	1.13	1.13
14000	RESAW OPERATOR	2	<90.0	<90.0	0.98	0.98
21100	MILLRIGHT/GENERAL	40	<90.0	<90.0	0.74	0.74
22800	ELECTRICIANS	30	<90.0	<90.0	0.74	0.74
12000	CUT-OFF SAW OPERATOR	2	<90.0	<90.0	0.26	0.26
11400	DEBAKKER OPERATOR	2	<90.0	<90.0	0.00	0.0
12300	SAWYER	4	<90.0	<90.0	0.00	0.0
14800	TRIMMER OPERATOR	4	<90.0	<90.0	0.00	0.15
15400	STACKER-GREEN	4	<90.0	<90.0	0.00	0.0
15500	STICKERMAN-GREEN	4	<90.0	<90.0	0.00	0.0
17300	GRADER/PLANEK MILL	9	<90.0	<90.0	0.00	0.0
17600	DRY CHAIN PULLER	8	<90.0	<90.0	0.00	0.0
17601	DRY CHAIN PULLER	10	<90.0	<90.0	0.00	0.0
18200	TALLYMEN	4	<90.0	<90.0	0.00	0.0
20100	LUMBER CARRIER OPER	7	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.0
21400	MACHINISTS	8	<90.0	<90.0	0.00	0.0
22300	MECHANICS	10	<90.0	<90.0	0.00	0.0
26600	HELPER	6	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND		LEV. WT. POP.	
			MEAN	N.C.	MEAN	N.C.
211	MILLWRIGHT/GENERAL	40	89.9	89.9	222	222
228	ELECTRICIANS	30	89.9	89.9	166	166
176	DRY CHAIN PULLER	18	86.2	87.4	56	69
159	TRANSFER OPERATOR	3	100.5	100.5	48	48
168	PLANER SET-UP MAN	2	103.7	104.4	41	43
134	EDGER OPERATOR	4	94.9	94.9	39	39
138	HOG OPERATOR	3	96.2	96.2	34	34
201	LUMBER CARRIER OPER	7	86.5	86.5	22	22
173	GRADER/PLANER MILL	9	85.0	85.0	22	22
167	PLANER OPERATOR	2	94.4	97.7	18	25
202	FORKLIFT OPERATOR	7	85.1	85.1	17	17
143	UNSCRAMBLE OPERATOR	2	91.3	94.8	13	19
140	RESAM OPERATOR	2	90.6	93.6	12	12
266	HELPER	6	83.6	83.6	11	11
182	TALLYMEN	4	85.0	85.0	9	9
120	CUT-OFF SAW OPERATOR	2	88.3	88.3	6	6
154	STACKER-GREEN	4	83.8	83.8	7	7
190	SPECIALTY RESAM OPER	1	92.0	92.0	7	7
191	SPECIALTY RESAM OFFB	1	92.0	92.0	7	7
155	STICKERMAN-GREEN	4	83.0	83.0	6	6
123	SAWYER	4	82.4	83.7	5	7
219	MACHINISTS	8	<75.0	<75.0	0	0
148	TRIMMER OPERATOR	4	<75.0	84.4	0	8
114	DEBARKER OPERATOR	2	<75.0	<75.0	0	0
223	MECHANICS	10	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

SDM JOB NO. 9639

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 1

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL 174
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 159
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.) 159
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 20
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.) 20
LEVEL WEIGHTED POPULATION (MEAN) 760.8
LEVEL WEIGHTED POPULATION (W.C.) 820.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 dBA
 8-H PEAK MISIABLE LEVEL = 90.0 dBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO. DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
159	TRANSFER OPERATOR	3	99.4	99.4	3.69	3.69
168	PLANER SET-UP MAN	2	97.5	95.0	2.81	3.01
167	PLANER OPERATOR	2	94.4	97.7	1.83	2.91
134	EDGER OPERATOR	4	94.3	94.3	1.82	1.82
138	HOG OPERATOR	3	93.8	93.8	1.69	1.69
190	SPECIALTY RESAW OPEK	1	91.4	91.4	1.22	1.22
191	SPECIALTY RESAW OFFB	1	91.4	91.4	1.22	1.22
143	UNSCRAMBLE OPERATOR	2	90.9	94.4	1.13	1.85
140	RESAW OPERATOR	2	<90.0	<90.0	0.98	0.98
211	MILLWRIGHT/GENERAL	40	<90.0	<90.0	0.74	0.74
228	ELECTRICIANS	30	<90.0	<90.0	0.74	0.74
120	CUT-OFF SAW OPERATOR	2	<90.0	<90.0	0.26	0.26
114	DEBARKER OPERATOR	2	<90.0	<90.0	0.00	0.00
123	SAWYER	4	<90.0	<90.0	0.00	0.00
148	TRIMMER OPERATOR	4	<90.0	<90.0	0.00	0.18
154	STACKER-GREEN	4	<90.0	<90.0	0.00	0.00
155	STICKERMAN-GREEN	4	<90.0	<90.0	0.00	0.00
173	GRADER/PLANER MILL	9	<90.0	<90.0	0.00	0.00
176	DRY CHAIN PULLER	18	<90.0	<90.0	0.00	0.00
182	TALLYMEN	4	<90.0	<90.0	0.00	0.00
201	LUMBER CARRIER OPEK	7	<90.0	<90.0	0.00	0.00
202	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.00
219	MACHINISTS	8	<90.0	<90.0	0.00	0.00
223	MECHANICS	10	<90.0	<90.0	0.00	0.00
266	HELPER	6	<90.0	<90.0	0.00	0.00

ENVIRONMENTAL PROTECTION AGENCY

BSN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 179
TOTAL NUMBER OVEREXPOSED (MEAN) = 18
TOTAL NUMBER OVEREXPOSED (W.C.) = 18

ENVIRONMENTAL PROTECTION AGENCY

60N JOB NO. 4635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PEKS.	PRIORITY INDEX	NORM. P.I.
1623	HEADRIG	2	83.0	84.4	80	39.9	0.258
1670	TRIMMER	1	72.0	72.0	92	18.8	0.121
1711	PLANER/ENCL	4	94.5	97.9	149	17.3	0.111
1802	FORKLIFT	1	86.6	86.6	13	13.0	0.084
1693	KILN CHAIN CONVYR	1	86.0	86.0	31	11.1	0.072
1764	RESAW-SPECIALTY	1	93.0	93.0	76	10.6	0.068
1742	DRY CHAIN CONVEYR	5	86.4	88.5	10	10.0	0.065
1636	EDGER	1	95.5	95.5	78	6.2	0.040
1815	TRANSFER CARRIER	1	102.0	102.0	3	3.0	0.019
1690	KILN CHAIN CONVYR	4	83.5	91.6	4	3.0	0.019
1691	KILN CHAIN CONVYR	4	82.3	91.8	4	2.7	0.018
1682	GREEN CHAIN CONVY	3	91.7	95.2	2	2.0	0.013
1647	RESAW-LARGE	1	91.0	91.0	5	1.9	0.013
1702	PLANER	2	116.5	117.2	2	1.4	0.012
1784	CHIPPER	1	103.1	103.1	5	1.7	0.011
1613	CUT-OFF SAW	1	97.0	97.0	2	1.5	0.009
1612	CUT-OFF SAW	1	83.0	83.0	2	0.5	0.003
1622	HEADRIG	2	79.0	80.4	4	0.4	0.002
1788	HOG/ENCL	1	96.0	96.0	1	0.3	0.002
1790	HOG	1	94.0	94.0	2	0.2	0.001
1635	EDGER	1	88.5	88.5	4	0.1	0.001
1646	RESAW-LARGE	1	87.0	87.0	2	0.1	0.001
1787	HOG/ENCL	1	91.0	91.0	1	0.1	0.001
1710	PLANER/ENCL	1	91.3	91.3	2	0.0	0.000
1680	BACK/GREEN CHAIN	1	83.1	83.1	2	0.0	0.000
1687	KILN	2	85.5	93.3	3	0.0	0.000
1816	TRANSFER CARRIER	1	76.0	76.0	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1636	EDGER	1	95.5	95.5	5	4.0	0.225
1711	PLANER/ENCL	4	94.5	97.9	7	3.0	0.167
1815	TRANSFER CARRIER	1	102.0	102.0	3	3.0	0.167
1682	GREEN CHAIN CONVY	3	91.7	95.2	2	2.0	0.111
1784	CHIPPER	1	103.1	103.1	2	1.6	0.087
1764	RESAW-SPECIALTY	1	93.0	93.0	4	1.5	0.086
1702	PLANER	2	116.5	117.2	2	1.4	0.078
1790	HOG	1	94.0	94.0	2	0.4	0.025
1623	HEADRIG	2	83.0	84.4	1	0.3	0.017
1786	HOG/ENCL	1	96.0	96.0	1	0.3	0.017
1670	TRIMMER	1	72.0	72.0	1	0.2	0.009
1787	HOG/ENCL	1	91.0	91.0	1	0.2	0.009
1710	PLANER/ENCL	1	91.3	91.3	2	0.1	0.004

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1620	HEADRIG	4	81.0	82.4	84	40.3	0.260
1699	PLANEK	10	97.5	100.2	153	19.2	0.124
1664	TRIMMER	5	83.8	97.9	92	15.8	0.121
1688	KILN CHAIN	11	84.7	93.6	39	16.8	0.108
1800	FORKLIFT	1	86.6	88.0	13	13.0	0.084
1759	RESAW/SPECIALTY	2	92.0	92.0	76	10.6	0.068
1739	DRY CHAIN	5	86.4	88.5	10	10.0	0.065
1810	LUMBER CARRIER	2	88.0	88.0	28	8.5	0.055
1629	EDGER	6	83.7	85.8	82	6.4	0.041
1813	TRANSFER CARRIER	2	89.0	89.0	6	3.0	0.019
1644	RESAW/LARGE	2	89.0	89.0	7	2.1	0.013
1679	GREEN CHAIN	4	89.5	93.0	4	2.0	0.013
1610	CUT-OFF	2	90.0	90.0	4	2.0	0.013
1774	CHIPPER	2	99.6	99.6	5	1.7	0.011
1785	HOG	4	92.8	92.8	4	0.6	0.004
1776	CONVEYOR/GEN	2	84.8	86.2	3	0.1	0.001
1685	KILN	2	85.5	91.3	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 40.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1699	PLANE	10	97.5	100.2	11	4.5	0.249
1629	EDGER	6	83.7	85.8	9	4.0	0.225
1813	TRANSFER CARRIER	2	89.0	89.0	6	3.0	0.167
1679	GREEN CHAIN	4	89.5	93.0	4	2.0	0.111
1779	CHIPPER	2	99.5	99.5	2	1.5	0.067
1759	RESAW/SPECIALTY	2	92.0	92.0	4	1.5	0.086
1785	MOG	4	92.8	92.8	4	0.9	0.050
1620	HEADRIG	4	81.0	82.4	1	0.3	0.017
1664	TRIMMER	5	83.8	97.9	1	0.2	0.009

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 8

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
16800	PLANER SET-UP MAN	6	115.0	117.8	240	275
17300	GRADER/PLANER MILL	6	95.8	97.1	64	73
14800	TRIMMER OPERATOR	6	95.7	95.7	64	64
16700	PLANER OPERATOR	6	94.7	95.8	58	85
17600	DRY CHAIN PULLER	12	86.8	90.9	42	75
19100	SPECIALTY RESAW OFFB	2	96.5	97.2	23	24
15400	STACKER-GREEN	7	86.1	86.1	21	21
20200	FORKLIFT OPERATOR	7	85.8	90.0	20	39
19000	SPECIALTY RESAW OPER	1	102.0	103.4	18	20
10400	PLANER SUPERVISOR	3	84.4	92.0	15	23
18200	TALLYMEN	2	91.0	91.0	13	13
26100	CLEAN-UP MAN/REGULAR	2	89.8	93.2	10	16
17301	GRADER/PLANER MILL	1	93.0	94.4	8	9
15401	STACKER-GREEN	1	86.4	88.9	3	4
17601	DRY CHAIN PULLER	1	85.7	86.0	2	4
21300	MILLWRIGHT/PLANER	1	85.3	86.0	2	4
15500	STICKERMAN-GREEN	1	85.1	85.1	2	2
17302	GRADER/PLANER MILL	1	84.6	86.8	2	3
14300	UNSCRAMBLE OPERATOR	1	84.0	86.0	2	3
14500	GREEN CHAIN OPERATOR	1	83.3	85.1	1	2
16000	KILN OPERATOR	2	74.8	74.0	1	1
17900	BANDER OPERATOR	2	<75.0	<75.0	0	0
20100	LUMBER CARRIER OPER	1	<75.0	<75.0	0	0
21900	MACHINISTS	1	<75.0	<75.0	0	0
22300	MECHANICS	2	<75.0	<75.0	0	0
26200	CLEAN-UP MAN/DOWN TM	2	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242 PLANT NO. = 6 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	LEVEL M.C.	DAILY NOISE DOSE MEAN	DOSE M.C.
16800	PLANER SET-UP MAN	6	113.3	116.0	25.25	36.89
19000	SPECIALTY RESAW OPER	1	102.0	103.4	5.28	6.42
19100	SPECIALTY RESAW OFFB	2	96.5	97.2	2.46	2.72
17300	GRADER/PLANER MILL	6	95.8	97.1	2.22	2.67
14800	TRIMMER OPERATOR	6	95.7	95.7	2.19	2.19
16700	PLANER OPERATOR	6	94.2	95.5	1.80	3.24
18200	TALLYMEN	2	91.2	91.2	1.19	1.19
17301	GRADER/PLANER MILL	1	91.0	92.4	1.15	1.40
26100	CLEAN-UP MAN/REGULAR	2	<90.0	90.5	0.65	1.07
10400	PLANER SUPERVISOR	3	<90.0	<90.0	0.58	0.93
21300	MILLWRIGHT/PLANER	1	<90.0	<90.0	0.26	0.40
14300	UNSCRAMBLE OPERATOR	1	<90.0	<90.0	0.00	0.0
14500	GREEN CHAIN OPERATOR	1	<90.0	<90.0	0.00	0.0
19400	STACKER-GREEN	7	<90.0	<90.0	0.00	0.0
15401	STACKER-GREEN	1	<90.0	<90.0	0.00	0.0
15500	STICKERMAN-GREEN	1	<90.0	<90.0	0.00	0.0
16000	KILN OPERATOR	2	<90.0	<90.0	0.00	0.0
17302	GRADER/PLANER MILL	1	<90.0	<90.0	0.00	0.0
17600	DRY CHAIN PULLER	12	<90.0	90.5	0.00	1.07
17601	DRY CHAIN PULLER	1	<90.0	<90.0	0.00	0.0
17900	BANDER OPERATOR	2	<90.0	<90.0	0.00	0.0
20100	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.82
21900	MACHINISTS	1	<90.0	<90.0	0.00	0.0
22300	MECHANICS	2	<90.0	<90.0	0.00	0.0
26200	CLEAN-UP MAN/DOWN TM	2	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242 PLANT NO. = 8 NU DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	SOUND MEAN	LEVEL W.C.	LEV. WT. MEAN	PUP. W.C.
168	PLANER SET-UP MAN	6	115.0	117.8	240	275
173	GRADER/PLANER MILL	8	94.0	95.5	75	86
148	TRIMMER OPERATOR	6	95.7	95.7	64	64
167	PLANER OPERATOR	6	94.7	96.8	58	65
176	DRY CHAIN PULLER	13	86.7	90.7	44	80
154	STACKER-GREEN	8	88.1	85.4	24	26
191	SPECIALTY RESAW OFFB	2	96.5	97.2	23	24
202	FORKLIFT OPERATOR	7	85.8	90.0	20	39
190	SPECIALTY RESAW OPER	1	102.0	103.4	18	20
104	PLANER SUPERVISOR	3	89.4	92.6	15	23
182	TALLYMEN	2	91.6	91.6	13	13
261	CLEAN-UP MAN/REGULAR	2	89.8	93.2	10	16
213	MILLWRIGHT/PLANER	1	85.3	85.0	2	4
155	STICKERMAN-GREEN	1	85.1	85.1	2	2
143	UNSCRAMBLE OPERATOR	1	84.0	85.0	2	3
145	GREEN CHAIN OPERATOR	1	83.3	85.1	1	2
160	KILN OPERATOR	2	79.8	79.8	1	1
179	BANDER OPERATOR	2	<75.0	<75.0	0	0
201	LUMBER CARRIER OPER	1	<75.0	<75.0	0	0
219	MACHINISTS	1	<75.0	<75.0	0	0
223	MECHANICS	2	<75.0	<75.0	0	0
262	CLEAN-UP MAN/DOWN TR	2	<75.0	<75.0	0	0

TOTAL NUMBER OF PERSONNEL	75
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	70
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	70
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	30
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.)	54
LEVEL WEIGHTED POPULATION (MEAN)	619.2
LEVEL WEIGHTED POPULATION (W.C.)	769.0

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242 PLANT NO. = 5 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	W.C.
168	PLAHER SET-UP MAN	6	113.3	110.0	25.25	30.89
190	SPECIALTY RESAW OPEK	1	102.0	103.4	5.28	6.42
191	SPECIALTY RESAW OFF	2	96.5	97.2	2.46	2.72
148	TRIMMER OPERATOR	6	95.7	95.7	2.19	2.19
173	GRADER/PLAHER MILL	8	94.3	95.6	1.81	2.17
167	PLAHER OPERATOR	6	94.2	90.5	1.80	3.24
182	TALLYMEN	2	91.2	91.2	1.19	1.19
261	CLEAN-UP MAN/REGULAR	2	<90.0	90.5	0.65	1.07
104	PLAHER SUPERVISOR	3	<90.0	<90.0	0.58	0.93
213	MILLWRIGHT/PLAHER	1	<90.0	<90.0	0.26	0.40
143	UNSCRAMBLE OPERATOR	1	<90.0	<90.0	0.00	0.0
145	GREEN CHAIN OPERATOR	1	<90.0	<90.0	0.00	0.0
154	STACKER-GREEN	8	<90.0	<90.0	0.00	0.0
155	STICKEMAN-GREEN	1	<90.0	<90.0	0.00	0.0
160	KILN OPERATOR	2	<90.0	<90.0	0.00	0.0
176	DRY CHAIN PULLER	13	<90.0	<90.0	0.00	0.99
179	BANDER OPERATOR	2	<90.0	<90.0	0.00	0.0
201	LUMBER CARRIER OPEK	1	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00	0.82
219	MACHINISTS	1	<90.0	<90.0	0.00	0.0
223	MECHANICS	2	<90.0	<90.0	0.00	0.0
262	CLEAN-UP MAN/DOWN TA	2	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 78
 TOTAL NUMBER OVEREXPOSED (MEAN) = 30
 TOTAL NUMBER OVEREXPOSED (W.C.) = 44

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1742	DRY CHAIN CONVEYR	2	87.3	91.2	30	11.6	0.186
1702	PLANER	2	118.0	120.8	36	9.3	0.133
1802	FORKLIFT	2	88.0	92.2	26	7.1	0.102
1716	PLANER/ENCL	2	96.0	97.4	13	8.4	0.098
1690	KILN CHAIN CONVYR	1	88.4	88.4	7	8.8	0.098
1711	PLANER/ENCL	2	95.0	94.2	18	8.6	0.095
1670	TRIMMER	1	90.0	90.0	12	6.2	0.088
1694	KILN CHAIN CONVYR	6	88.8	84.3	36	5.2	0.075
1687	KILN	1	85.0	85.0	2	2.0	0.029
1768	RESAM-SPECIALTY	2	90.3	97.2	2	2.0	0.028
1695	KILN CHAIN CONVYR	1	92.0	92.0	2	2.0	0.028
1762	BACK. ONLY CONTR.	1	88.8	88.8	12	1.2	0.017
1764	RESAM-SPECIALTY	2	102.0	103.4	1	1.0	0.014
1691	KILN CHAIN CONVYR	1	85.4	85.4	1	1.0	0.014
1715	PLANER/ENCL	1	93.6	93.0	6	0.3	0.005
1669	TRIMMER	2	91.5	93.8	6	0.2	0.003
1710	PLANER/ENCL	2	90.0	90.5	6	0.2	0.003

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4639

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	N.C. LJ	NO. OF PKS.	PRIORITY INDEX	NDKM. P.I.
1716	PLANER/ENCL	2	96.0	97.4	7	6.6	0.220
1711	PLANER/ENCL	2	95.0	94.2	12	6.2	0.208
1702	PLANER	2	118.0	120.6	6	5.8	0.192
1670	TRIMMER	1	96.0	96.0	6	5.7	0.189
1695	KILN CHAIN CONVTK	1	92.0	92.0	2	2.0	0.067
1768	RESAW-SPECIALTY	2	96.5	97.2	2	2.0	0.067
1764	RESAW-SPECIALTY	2	102.0	103.4	1	1.0	0.033
1715	PLANER/ENCL	1	93.0	93.0	6	0.4	0.014
1669	TRIMMER	2	91.5	93.6	6	0.3	0.011

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 8

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	NORM. P.I.
1699	PLANER	9	99.0	134.0	79	23.3	0.333
1688	KILN CHAIN	11	87.8	90.2	46	15.0	0.214
1739	DRY CHAIN	2	87.0	91.2	30	11.6	0.166
1800	FORKLIFT	2	88.0	92.2	26	7.1	0.102
1664	TRIMMER	3	93.0	95.1	18	6.4	0.091
1759	RESAW/SPECIALTY	9	97.2	98.1	15	4.2	0.060
1685	KILN	1	85.0	85.0	2	2.0	0.029
1776	CONVEYOR/GEN	1	73.0	73.0	25	0.3	0.005

ENVIRONMENTAL PROTECTION AGENCY

80N JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	n.c. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1699	PLANER	9	99.0	104.0	37	14.0	0.633
1664	TRIMMER	3	93.0	95.1	12	6.0	0.200
1759	RESAW/SPECIALTY	9	97.2	98.1	3	3.0	0.100
1688	KILN CHAIN	11	87.0	90.2	2	2.0	0.067

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 9

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		LEV. WT. PUP.	
			MEAN	M.C.	MEAN	M.C.
21200	MILLRIGHT/SAMMILL	8	93.1	93.1	65	65
13700	CHIPPER OPERATOR	2	98.2	99.3	26	29
23300	CARPENTERS	2	93.4	93.4	16	16
14000	RESAW OPERATOR	2	92.2	92.2	14	14
24500	OILER	2	91.4	91.4	13	13
24400	FILEKS	2	91.0	91.0	12	12
10100	SAWMILL SUPERVISOR	2	90.9	90.9	12	12
11700	DECK SCALER	2	90.0	94.2	11	18
15400	STACKER-GREEN	2	88.7	92.5	9	15
20200	FORKLIFT OPERATOR	4	84.4	84.4	8	8
14900	GREEN CHAIN OPERATOR	2	87.8	90.3	8	11
15500	STICKERMAN-GREEN	2	87.1	90.7	7	12
26100	CLEAN-UP MAN/REGULAR	1	89.9	91.0	5	6
26200	CLEAN-UP MAN/DOWN TM	1	89.2	93.8	5	6
12300	SAWYER	2	82.2	82.2	2	2
17300	GRADER/PLANE MILL	1	84.0	84.0	2	2
13400	EDGER OPERATOR	2	81.3	81.3	1	1
14800	TRIMMER OPERATOR	2	78.8	78.8	0	0
17600	DRY CHAIN PULLER	4	77.0	78.4	0	1
16000	KILN OPERATOR	2	77.4	80.8	0	9
11400	DEBARCKER OPERATOR	2	76.0	75.0	0	0
18200	TALLYMEN	1	<75.0	<75.0	0	0
21900	MACHINISTS	1	<75.0	<75.0	0	0
22300	MECHANICS	7	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
13700	CHIPPER OPERATOR	2	96.0	96.7	2.29	2.52
23300	CARPENTERS	2	93.3	93.3	1.58	1.58
21200	MILLWRIGHT/SAWMILL	8	92.4	92.4	1.40	1.40
14000	KESAM OPERATOR	2	90.9	90.9	1.14	1.14
24500	GILER	2	90.5	90.5	1.08	1.08
24400	FILERS	2	<90.0	<90.0	0.86	0.86
10100	SAWMILL SUPERVISOR	2	<90.0	<90.0	0.81	0.81
15400	STACKER-GREEN	2	<90.0	90.2	0.57	1.03
26200	CLEAN-UP MAN/DOWN TM	1	<90.0	<90.0	0.53	0.69
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26	0.39
11400	DEBARCKER OPERATOR	2	<90.0	<90.0	0.00	0.0
11700	WECK SCALER	2	<90.0	94.2	0.00	1.80
12300	SAWYER	2	<90.0	<90.0	0.00	0.0
13400	EDGER OPERATOR	2	<90.0	<90.0	0.00	0.0
14500	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.74
14800	TRIMMER OPERATOR	2	<90.0	<90.0	0.00	0.0
15500	STICKERMAN-GREEN	2	<90.0	<90.0	0.00	0.78
16000	KILN OPERATOR	2	<90.0	<90.0	0.00	0.55
17300	GRADER/PLANE MILL	1	<90.0	<90.0	0.00	0.0
17600	DRY CHAIN PULLER	4	<90.0	<90.0	0.00	0.0
16200	TALLYMEN	1	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	4	<90.0	<90.0	0.00	0.0
21900	MACHINISTS	1	<90.0	<90.0	0.00	0.0
22300	MECHANICS	7	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND		LEV. HT.		PUP. H.C.
			MEAN	H.C.	MEAN	H.C.	
212	MILLWRIGHT/SAWMILL	8	93.1	93.1	65	65	
137	CHIPPER OPERATOR	2	98.2	99.3	26	29	
233	CARPENTERS	2	93.4	93.4	16	16	
140	RESAW OPERATOR	2	92.2	92.2	14	14	
245	DILER	2	91.4	91.4	13	13	
244	FILERS	2	91.0	91.0	12	12	
101	SAWMILL SUPERVISOR	2	90.9	90.9	12	12	
117	DECK SCALER	2	90.0	94.2	11	18	
154	STACKER-GREEN	2	88.7	92.5	9	15	
202	FORKLIFT OPERATOR	4	84.4	84.4	8	8	
145	GREEN CHAIN OPERATOR	2	87.8	90.3	8	11	
155	STICKERMAN-GREEN	2	87.1	90.7	7	12	
261	CLEAN-UP MAN/REGULAR	1	89.9	91.0	5	6	
262	CLEAN-UP MAN/DOWN TM	1	89.2	93.8	5	6	
123	SAWYER	2	82.2	82.2	2	2	
173	GRADER/PLANER MILL	1	84.0	84.0	2	2	
134	EDGER OPERATOR	2	81.3	81.3	1	1	
148	TRIMMER OPERATOR	2	78.8	78.8	0	0	
176	DRY CHAIN PULLER	4	77.0	78.4	0	1	
160	KILN OPERATOR	2	77.4	88.8	0	9	
114	DEBARKER OPERATOR	2	76.0	76.0	0	0	
182	TALLYMEN	1	<75.0	<75.0	0	0	
219	MACHINISTS	1	<75.0	<75.0	0	0	
223	MECHANICS	7	<75.0	<75.0	0	0	

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	50
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	49
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (M.C.)	49
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	20
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.)	30
LEVEL WEIGHTED POPULATION (MEAN)	226.9
LEVEL WEIGHTED POPULATION (M.C.)	263.1

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	M.C.	DAILY NOISE DOSE MEAN	M.C.
137	CHIPPER OPERATOR	2	96.0	96.7	2.29	2.52
233	CARPENTERS	2	93.3	93.3	1.58	1.58
212	HILLWRIGHT/SAWMILL	8	92.4	92.4	1.40	1.40
140	RESAW OPERATOR	2	90.9	90.9	1.14	1.14
245	WILER	2	90.5	90.5	1.08	1.08
244	FILERS	2	<90.0	<90.0	0.86	0.86
101	SAWMILL SUPERVISOR	2	<90.0	<90.0	0.81	0.81
154	STACKER-GREEN	2	<90.0	90.2	0.57	1.03
262	CLEAN-UP MAN/DOWN TR	1	<90.0	<90.0	0.53	0.69
261	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26	0.39
114	DEBARKER OPERATOR	2	<90.0	<90.0	0.00	0.0
117	DECK SCALER	2	<90.0	94.2	0.00	1.80
123	SAWYER	2	<90.0	<90.0	0.00	0.0
134	EDGER OPERATOR	2	<90.0	<90.0	0.00	0.0
145	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00	0.74
148	TRIMMER OPERATOR	2	<90.0	<90.0	0.00	0.0
155	STICKERMAN-GREEN	2	<90.0	<90.0	0.00	0.78
160	KILN OPERATOR	2	<90.0	<90.0	0.00	0.55
173	GRADER/PLANER MILL	1	<90.0	<90.0	0.00	0.0
176	DRY CHAIN PULLER	4	<90.0	<90.0	0.00	0.0
182	TALLYMEN	1	<90.0	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	4	<90.0	<90.0	0.00	0.0
219	MACHINISTS	1	<90.0	<90.0	0.00	0.0
223	MECHANICS	7	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 58
TOTAL NUMBER OVEREXPOSED (MEAN) = 16
TOTAL NUMBER OVEREXPOSED (H.C.) = 20

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	EPA CRITERIA		NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
			MEAN LJ	M.C. LJ			
1623	HEADRIG	1	83.0	83.0	59	8.0	0.163
1638	BACK. ONLY CONTR.	0	86.8	86.8	52	5.6	0.114
1647	RESAW-LARGE	1	93.0	93.0	27	5.3	0.106
1802	FORKLIFT	1	86.6	86.6	4	4.0	0.082
1693	KILN CHAIN CONVYR	2	77.0	78.4	4	4.0	0.082
1687	KILN	2	82.0	93.3	2	2.0	0.041
1670	TRIMMER	1	80.0	80.0	26	2.0	0.040
1636	EDGER	1	82.0	82.0	2	1.8	0.036
1690	KILN CHAIN CONVYR	2	91.0	95.2	2	1.7	0.034
1682	GREEN CHAIN CONVY	2	90.0	92.8	2	1.7	0.034
1691	KILN CHAIN CONVYR	2	89.0	93.2	2	1.5	0.032
1782	CHIPPER/ENCL	2	107.0	108.4	2	1.5	0.031
1696	KILN CHAIN CONVYR	1	84.0	84.0	1	1.0	0.020
1689	BACK/KILN CHAIN	1	83.7	83.7	4	0.8	0.016
1669	TRIMMER	1	77.0	77.0	2	0.7	0.014
1680	BACK/GREEN CHAIN	1	83.1	83.1	2	0.3	0.007
1635	EDGER	1	78.0	78.0	2	0.2	0.005
1646	RESAW-LARGE	1	88.5	88.5	2	0.2	0.004
1622	HEADRIG	1	78.0	78.0	2	0.2	0.004

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA

8-HR PERMISSIBLE LEVEL = 90.0 DBA

EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1647	RESAW-LARGE	1	93.0	93.0	18	4.5	0.283
1638	BACK. ONLY CONTR.	0	86.6	86.8	32	4.5	0.274
1623	HEADKIG	1	83.0	83.0	32	4.0	0.252
1782	CHIPPER/ENCL	2	107.0	108.4	2	0.9	0.058
1670	TRIMMER	1	80.0	80.0	18	0.5	0.033

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1688	KILN CHAIN	9	84.1	87.6	13	9.0	0.184
1620	HEADRIG	2	80.5	80.5	61	8.2	0.167
1629	EDGEK	2	80.0	80.0	56	7.6	0.155
1644	RESAM/LARGE	4	91.6	91.6	29	5.5	0.113
1600	DEBARKER	1	79.0	79.0	7	4.0	0.082
1800	FORKLIFT	1	86.6	86.6	4	4.0	0.082
1664	TRIMMER	2	78.5	78.5	28	2.6	0.054
1776	CONVEYOR/GEN	1	90.0	90.0	45	2.5	0.052
1685	KILN	2	82.0	93.3	2	2.0	0.041
1679	GREEN CHAIN	3	87.7	90.5	4	2.0	0.041
1774	CHIPPER	4	102.5	104.7	2	1.5	0.031

ENVIRONMENTAL PROTECTION AGENCY

ORDN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 242

PLANT NO. = 9

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	NO. OF P.I.
1644	RESAW/LARGE	4	91.6	91.6	20	4.5	0.283
1629	EDGER	2	80.0	80.0	32	4.5	0.279
1620	HEADRIG	2	80.5	80.5	32	4.0	0.252
1776	CONVEYOR/GEN	1	90.0	90.0	22	1.5	0.095
1779	CHIPPER	4	102.5	104.7	2	0.9	0.058
1664	TRIMMER	2	78.5	78.5	18	0.5	0.033

APPENDIX F

Foundry Industry - Individual Plant Results

The results presented here for each plant are in the form of eight tables, which correspond to tables 5-21 to 5-29 (excluding 5-27) in section 5, corresponding to the industry average results. There is one group of eight tables for each of the seven plants.

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 1

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
34000	SQUEZ/JOLT MOLDER OP	14	92.7	92.7	109	109
36700	POURER	6	95.9	95.9	65	65
45000	DUMPOUT/SHAKEOUT OP	2	103.7	103.7	41	41
28000	WHEEL GRINDER OPER	6	91.4	91.4	40	40
20200	FORKLIFT OPERATOR	2	100.1	100.1	31	31
45900	SHIFTER	3	92.3	92.3	22	22
33900	AUTO-MOLDER OPERATOR	2	93.2	93.2	16	16
46700	WHELLABRATOR OPER	1	100.1	100.1	15	15
46100	INSPECTOR	1	99.3	99.3	14	14
32700	INDUCT. FURNACE OPER	1	98.6	98.6	13	13
32800	FURNACE CHARGER	1	95.9	95.9	10	10
42100	SHELL CORE OPERATOR	1	94.6	94.6	9	9
27600	PN DRILL GRINDER OP	1	94.1	94.1	9	9
46200	CUPOLA OPERATOR	1	92.0	92.0	7	7
42700	CORE GLUER	1	90.2	90.2	5	5
38500	MULLER OPER	1	89.5	89.5	5	5

ENVIRONMENTAL PROTECTION AGENCY

SON JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
45000	DUMP/SHAKE OUT OP	2	103.1	103.1	6.13	6.13
46700	WHELLABRATOR OPER	1	99.5	99.5	3.73	3.73
20200	FORKLIFT OPERATOR	2	98.1	98.1	3.09	3.09
32700	INDUCT. FURNACE OPER	1	97.4	97.4	2.80	2.80
46100	INSPECTOR	1	96.3	96.3	2.40	2.40
32800	FURNACE CHARGER	1	93.6	93.6	1.65	1.65
36700	POURER	6	93.6	93.6	1.65	1.65
42100	SHELL CUKE OPERATOR	1	93.4	93.4	1.61	1.61
27600	PN DRILL GRINDER OP	1	93.4	93.4	1.60	1.60
33900	AUTO-MULDER OPERATOR	2	92.4	92.4	1.39	1.39
34000	SQUEZ/JULT MULDER OP	14	91.4	91.4	1.22	1.22
46200	CUPOLA OPERATOR	1	90.4	90.4	1.06	1.06
28000	WHEEL GRINDER OPER	6	90.4	90.4	1.06	1.06
48500	MULLER OPER	1	<90.0	<90.0	0.69	0.69
45900	SHIFTER	3	<90.0	<90.0	0.55	0.55
42700	CORE GLUER	1	<90.0	<90.0	0.46	0.46

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	LEV. WT. MEAN	PUP. W.C.
340	SQUEZ/JOLT MOLDER OP	14	92.7	92.7	109	109
367	POURER	6	95.9	95.9	65	65
450	DUMPOUT/SHAKEDUT OP	2	103.7	103.7	41	41
280	WHEEL GRINDER OPER	6	91.4	91.4	40	40
202	FORKLIFT OPERATOR	2	100.1	100.1	31	31
459	SHIFTER	3	92.3	92.3	22	22
339	AUTO-MULDER OPERATOR	2	93.2	93.2	16	16
467	WHELLABRATOR OPER	1	100.1	100.1	15	15
461	INSPECTOR	1	99.3	99.3	14	14
327	INDUCT. FURNACE OPER	1	98.6	98.6	13	13
328	FURNACE CHARGER	1	95.9	95.9	10	10
421	SHELL CORE OPERATOR	1	94.6	94.6	9	9
276	PN DKILL GRINDER OP	1	94.1	94.1	9	9
462	CUPOLA OPERATOR	1	92.0	92.0	7	7
427	CORE GLUER	1	90.2	90.2	5	5
385	MULLER OPER	1	89.5	89.5	5	5

TOTAL NUMBER OF PERSONNEL	44
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	44
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	44
TOTAL NUMBER OF PERSONNEL WITH LEQ > 70 (MEAN)	43
TOTAL NUMBER OF PERSONNEL WITH LEQ > 70 (W.C.)	43
LEVEL WEIGHTED POPULATION (MEAN)	419.0
LEVEL WEIGHTED POPULATION (W.C.)	419.0

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	W.C.
450	DUMPOUT/SHAKEOUT OP	2	103.1	103.1	6.13	6.13
467	WHELLABRATOR OPER	1	99.5	99.5	3.73	3.73
202	FORKLIFT OPERATOR	2	98.1	98.1	3.09	3.09
327	INDUCT. FURNACE OPER	1	97.4	97.4	2.80	2.80
461	INSPECTOR	1	96.3	96.3	2.40	2.40
328	FURNACE CHARGER	1	93.6	93.6	1.65	1.65
367	POURER	6	93.6	93.6	1.65	1.65
421	SHELL CUKE OPERATOR	1	93.4	93.4	1.61	1.61
276	PN DRILL GRINDER OP	1	93.4	93.4	1.60	1.60
339	AUTO-MOLDER OPERATOR	2	92.4	92.4	1.39	1.39
340	SQUEZ/JOLT MOLDER OP	14	91.4	91.4	1.22	1.22
462	CUPOLA OPERATOR	1	90.4	90.4	1.06	1.06
280	WHEEL GRINDER OPER	6	90.4	90.4	1.06	1.06
385	MULLER OPER	1	<90.0	<90.0	0.69	0.69
459	SHIFTER	3	<90.0	<90.0	0.55	0.55
427	CORE GLUER	1	<90.0	<90.0	0.46	0.46

 TOTAL NUMBER OF PERSONNEL = 44
 TOTAL NUMBER OVEREXPOSED (MEAN) = 39
 TOTAL NUMBER OVEREXPOSED (W.C.) = 39

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1338	SQUEZ/JOLT MOLDER	1	94.0	94.0	35	14.0	0.317
1438	INDUCT. FURNACE	1	100.0	100.0	13	8.5	0.193
1513	MHEEL GRINDER	1	92.0	92.0	8	5.5	0.124
1490	SHAKEOUT CONVEYOR	1	105.0	105.0	23	5.3	0.120
1440	FURNACE	1	93.0	93.0	13	2.4	0.054
1335	AUTO-MOLDER	1	94.0	94.0	21	2.3	0.052
1450	SHELL CORE	1	96.0	96.0	21	2.0	0.045
1117	PN DRILL GRINDER	1	95.0	95.0	3	1.0	0.022
1499	MHEELABRATOR	1	100.0	100.0	18	0.9	0.020
1374	MULLER	1	91.0	91.0	1	0.9	0.019
1511	BACK/ELEC GRINDER	1	88.0	88.0	6	0.5	0.012
1493	BACK. ONLY CONTR.	0	82.8	82.8	17	0.5	0.011
1494	SHAKEOUT TABLE	1	97.0	97.0	3	0.2	0.004
1493	BACK. ONLY CONTR.	0	82.8	82.8	17	0.5	0.011

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE * 332

PLANT NO. = 1

NJ DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1338	SQUEZ/JOLT MOLDER	1	94.0	94.0	16	14.2	0.363
1438	INDUCT. FURNACE	1	100.0	100.0	10	6.5	0.166
1513	WHEEL GRINDER	1	92.0	92.0	6	6.0	0.154
1490	SHAKEOUT CONVEYOR	1	105.0	105.0	6	4.0	0.103
1440	FURNACE	1	93.0	93.0	10	3.1	0.079
1335	AUTO-MOLDER	1	94.0	94.0	2	2.0	0.051
1117	PN DRILL GRINDER	1	95.0	95.0	1	1.0	0.026
1450	SHELL CURER	1	96.0	96.0	1	1.0	0.026
1499	WHEELABRATOR	1	100.0	100.0	1	0.6	0.017
1494	SHAKEOUT TABLE	1	97.0	97.0	3	0.3	0.007

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PERS.	PRIORITY INDEX	NORM. P.I.
1333	HOLDER	2	94.0	94.0	56	16.3	0.369
1434	FURNACE	2	96.5	96.5	26	10.9	0.247
1510	ELECTRIC GRINDERS	2	90.0	90.0	14	6.0	0.137
1484	SHAKEOUT/DUMPOUT	2	101.0	101.0	43	5.9	0.134
1448	CORE DYEN	1	96.0	96.0	21	2.0	0.045
1103	PNEUMATIC GRINDER	1	95.0	95.0	3	1.0	0.022
1497	WHEELABRATOR	1	100.0	100.0	18	0.9	0.020
1371	MULLER	1	91.0	91.0	1	0.9	0.019

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 1

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUMB. P.I.
1333	MOLDER	2	94.0	94.0	18	16.2	0.415
1434	FURNACE	2	96.5	96.5	20	9.5	0.245
1510	ELECTRIC GRINDERS	2	90.0	90.0	12	6.0	0.154
1484	SHAKE OUT/DUMPOUT	2	101.0	101.0	9	4.3	0.111
1448	CORE OVEN	1	96.0	96.0	1	1.0	0.026
1103	PNEUMATIC GRINDER	1	95.0	95.0	1	1.0	0.026
1497	WHEELABRATOR	1	100.0	100.0	1	0.6	0.017
1525	HAMMERING	1	100.0	100.0	1	0.3	0.009

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 2

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	LEV. WT. MEAN	POP. W.C.
28200	TRIM GRINDER OPER	4	99.9	99.9	61	61
34000	SQUEZ/JOLT MOLDER OP	4	96.6	96.6	46	46
42100	SHELL CORE OPERATOR	5	93.2	93.2	41	41
32500	FURNACE OPERATOR	4	93.5	93.5	34	34
42200	NO-BAKE CORE OPER	5	91.3	91.3	33	33
50400	RADIAL SAW OPERATOR	2	99.9	99.9	30	30
28100	STAND STONE GRINDER	4	90.4	91.0	23	25
42600	CORE SETTER	3	92.4	92.4	22	22
44001	SHAKEOUT OPERATOR	4	89.7	93.7	21	35
34100	FLOOR MULDER	2	94.8	94.8	19	19
50200	BAND SAW OPERATOR	2	92.5	92.5	15	15
36700	POURER	2	90.4	90.4	11	11
36701	POURER	2	90.4	90.4	11	11
44000	SHAKEOUT OPERATOR	2	90.1	94.7	11	19
38500	MULLER OPER	1	88.7	91.0	4	6
38501	MULLER OPER	1	88.7	91.0	4	6
40200	ROTOBLAST OPERATOR	1	88.0	88.0	4	4

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9835

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	W.C.
28200	TRIM GRINDER OPER	4	98.3	98.3	3.17	3.17
50400	RADIAL SAW OPERATOR	2	98.3	98.3	3.17	3.17
34000	SQUEZ/JOLT MOLDER OP	4	95.4	95.4	2.12	2.12
42600	CORE SETTER	3	91.4	91.4	1.21	1.21
32500	FURNACE OPERATOR	4	91.3	91.3	1.20	1.20
42100	SHELL CURE OPERATOR	5	91.0	91.0	1.15	1.15
34100	FLOOR MOLDER	2	90.4	90.4	1.00	1.00
50200	BAND SAW OPERATOR	2	90.3	90.3	1.04	1.04
42200	NU-BAKE CORE OPER	5	<90.0	<90.0	0.87	0.87
44000	SHAKEOUT OPERATOR	2	<90.0	93.8	0.86	1.70
28100	STAND STONE GRINDER	4	<90.0	<90.0	0.74	0.81
44001	SHAKEOUT OPERATOR	4	<90.0	91.6	0.64	1.26
36700	POURER	2	<90.0	<90.0	0.40	0.40
36701	POURER	2	<90.0	<90.0	0.40	0.40
38500	MULLER OPER	1	<90.0	<90.0	0.00	0.90
38501	MULLER OPER	1	<90.0	<90.0	0.00	0.90
40200	ROTOBLAST OPERATOR	1	<90.0	<90.0	0.00	0.0

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 2

NU DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	LEV. WT. MEAN	PUP. W.C.
282	TRIM GRINDER OPER	4	99.9	99.9	61	61
340	SQUEZ/JOLT MOLDER OP	4	96.6	96.6	46	46
421	SHELL CORE OPERATOR	5	93.2	93.2	41	41
325	FURNACE OPERATOR	4	93.5	93.5	34	34
422	NO-BAKE CORE OPER	5	91.3	91.3	33	33
440	SHAKEOUT OPERATUR	6	89.8	94.0	32	54
504	RADIAL SAM OPERATOR	2	94.9	99.9	30	30
281	STAND STONE GRINDER	4	90.4	91.0	23	25
367	POURER	4	90.4	90.4	23	23
426	CORE SETTER	3	92.4	92.4	22	22
341	FLOOR MOLDER	2	94.8	94.8	19	19
502	BAND SAM OPERATOR	2	92.5	92.5	15	15
385	MULLER OPER	2	88.7	91.0	9	12
402	ROTO&LAST OPERATOR	1	88.0	88.0	4	4

TOTAL NUMBER OF PERSONNEL	48
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	48
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	48
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	41
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.)	47
LEVEL WEIGHTED POPULATION (MEAN)	399.5
LEVEL WEIGHTED POPULATION (W.C.)	426.1

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332 PLANT NO. = 2 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
282	TRIM GRINDER OPER	4	98.3	98.3	3.17	3.17
504	RADIAL SAW OPERATOR	2	98.3	98.3	3.17	3.17
340	SQUEZ/JULY MOLDER OP	4	95.4	95.4	2.12	2.12
426	CORE SETTER	3	91.4	91.4	1.21	1.21
325	FURNACE OPERATOR	4	91.3	91.3	1.20	1.20
421	SHELL COKE OPERATOR	5	91.0	91.0	1.15	1.15
341	FLOUR MOLDER	2	90.4	90.4	1.06	1.06
502	BAND SAW OPERATOR	2	90.3	90.3	1.04	1.04
422	NO-BAKE CORE OPER	5	<90.0	<90.0	0.87	0.87
261	STAND STONE GRINDER	4	<90.0	<90.0	0.74	0.81
440	SHAKEOUT OPERATOR	6	<90.0	92.5	0.71	1.42
367	POURER	4	<90.0	<90.0	0.40	0.40
385	MULLER OPER	2	<90.0	<90.0	0.00	0.90
402	ROTORBLAST OPERATOR	1	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 48
 TOTAL NUMBER OVEREXPOSED (MEAN) = 26
 TOTAL NUMBER OVEREXPOSED (M.C.) = 32

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1503	RADIAL SAW	1	102.0	102.0	26	6.6	0.137
1486	SHAKEDUT	2	90.5	95.4	20	6.5	0.135
1446	CRUCIBLE	1	95.0	95.0	12	6.1	0.127
1450	SHELL CURE	1	96.0	96.0	15	5.1	0.105
1451	NO-BAKE CORE	1	94.0	94.0	15	4.9	0.103
1502	BAND SAW	1	94.0	94.0	22	4.3	0.089
1338	SQUEZ/JOLT HOLDER	1	98.0	98.0	8	4.0	0.083
1459	CORE SET LINE	1	93.0	93.0	17	3.2	0.066
1517	STAND STONE GRIND	2	91.5	92.2	4	3.1	0.064
1374	MULLER	2	89.0	91.8	16	1.9	0.039
1482	PN VIBRATOR	1	102.0	102.0	22	1.4	0.029
1146	PN TAMPER	1	97.0	97.0	2	0.7	0.014
1194	ROTOBLAST	1	88.0	88.0	1	0.3	0.006
1435	BACK/FURNACE	1	83.5	83.5	4	0.1	0.002

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 4635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA

8-HR PERMISSIBLE LEVEL = 90.0 DBA

EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PKRS.	PRIORITY INDEX	NRNM. P.I.
1503	RADIAL SAW	1	102.0	102.0	6	6.0	0.231
1450	SHELL COKE	1	96.0	96.0	5	5.0	0.192
1338	SQUEEZ/JOLT MOLDER	1	98.0	98.0	4	4.0	0.154
1446	CRUCIBLE	1	95.0	95.0	4	4.0	0.154
1459	CORE SET LINE	1	93.0	93.0	3	3.0	0.115
1502	BAND SAW	1	94.0	94.0	2	2.0	0.077
1146	PN TAMPER	1	97.0	97.0	2	1.0	0.038
1482	PN VIBRATOR	1	102.0	102.0	2	1.0	0.038

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1500	SAW/METAL	2	98.0	98.0	48	10.8	0.226
1448	CORE OVEN	2	95.0	95.0	30	10.0	0.208
1484	SHAKEOUT/DUMPOUT	2	90.5	95.4	20	6.5	0.135
1444	CRUCIBLE	1	95.0	95.0	12	6.1	0.127
1333	MOLDER	1	98.0	98.0	8	4.0	0.083
1457	CORE SET LINE	1	93.0	93.0	17	3.2	0.066
1510	ELECTRIC GRINDERS	3	90.3	91.0	4	3.1	0.064
1371	MULLER	2	89.0	91.8	16	1.9	0.039
1480	PNEUMATIC VIBRATOR	1	102.0	102.0	22	1.4	0.029
1144	PNEUMATIC TAMPER	1	97.0	97.0	2	0.7	0.014
1187	ABRASIVE BLASTING	1	88.0	88.0	1	0.3	0.006
1434	FURNACE	1	83.5	83.5	4	0.1	0.002

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 4039

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 2

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1500	SAW/METAL	2	98.0	98.0	8	8.0	0.308
1446	CORE OVEN	2	95.0	95.0	5	5.0	0.192
1333	MOLDER	1	98.0	98.0	4	4.0	0.154
1444	CRUCIBLE	1	95.0	95.0	4	4.0	0.154
1457	CORE SET LINE	1	93.0	93.0	3	3.0	0.115
1480	PNEUMATIC VIBRATOR	1	102.0	102.0	2	1.0	0.038
1144	PNEUMATIC TAMPER	1	97.0	97.0	2	1.0	0.038

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 3

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	POP. M.C.
30200	ARC-AIR OPERATOR	6	99.1	99.1	87	87
36700	POURER	4	98.9	98.9	57	57
27700	PN DISC GRINDER OPER	4	95.2	96.6	40	46
27500	PN GRINDER OPER	6	90.7	90.7	36	36
44300	SHAKEOUT TABLE OPER	2	101.5	101.5	35	35
50500	CUT-OFF WHEEL OPER	2	99.8	99.8	30	30
39500	SANDSLINGER OPERATOR	2	99.2	99.2	29	29
33800	SHELLMOLDER OPERATOR	4	91.5	91.5	27	27
42100	SHELL CORE OPERATOR	4	91.5	91.5	27	27
27800	PN CONE GRINDER OPER	3	93.1	94.5	24	28
27900	SHING GRINDER OPER	3	92.0	92.0	21	21
32600	ARC FURNACE OPERATOR	1	101.1	101.1	16	16
33700	MI PRESS. MOLDER OP	2	92.8	92.8	15	15
40500	SPIRALBLAST OPERATOR	1	96.5	96.5	11	11
28100	STAND STONE GRINDER	2	90.0	90.0	11	11
38800	SANDMULLER OPERATOR	1	95.9	95.9	10	10
34200	PACEMAKER MOLDER OPER	1	94.2	94.2	9	9
43300	CORE ROOM WORKER	17	79.6	79.6	9	9
46700	WHELLABRATOR OPER	2	87.8	87.8	8	8
35000	MOLD WASH WORKER	1	92.5	92.5	7	7
32700	INDUCT. FURNACE OPER	2	86.3	86.3	6	6

ENVIRONMENTAL PROTECTION AGENCY

BDN JOB NO. 9639

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
32600	ARC FURNACE OPERATOR	1	100.4	103.4	4.22	4.22
44300	SHAKEOUT TABLE OPER	2	99.6	99.6	3.81	3.81
50500	CUT-OFF WHEEL OPER	2	98.3	98.3	3.17	3.17
39500	SANUSLINGER OPERATOR	2	97.6	97.6	2.87	2.87
36700	POURER	4	97.2	97.2	2.72	2.72
30200	ARC-AIR OPERATOR	6	97.0	97.0	2.64	2.64
38800	SANDMULLER OPERATOR	1	95.5	95.5	2.14	2.14
40500	SPIRALBLAST OPERATOR	1	95.4	95.4	2.12	2.12
27700	PN DISC GRINDER OPER	4	93.0	94.4	1.52	1.84
34200	PACEMAKER MOLDER OPER	1	91.4	91.4	1.21	1.21
33700	HI PRESS. MOLDER OP	2	91.4	91.4	1.21	1.21
27800	PN CONE GRINDER OPER	3	90.7	92.2	1.10	1.36
27900	SHING GRINDER OPER	3	90.4	90.4	1.06	1.06
33800	SHELLMOLDER OPERATOR	4	<90.0	<90.0	0.87	0.87
42100	SHELL COKE OPERATOR	4	<90.0	<90.0	0.87	0.87
35000	HOLD WASH WORKER	1	<90.0	<90.0	0.87	0.87
27500	PN GRINDER OPER	6	<90.0	<90.0	0.76	0.76
26100	STAND STONE GRINDER	2	<90.0	<90.0	0.69	0.69
32700	INDUCT. FURNACE OPER	2	<90.0	<90.0	0.00	0.00
43300	CORE ROOM WORKER	17	<90.0	<90.0	0.00	0.00
46700	SHELLLABRATOR OPER	2	<90.0	<90.0	0.00	0.00

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. WT. MEAN	PUP. H.C.
302	ARC-AIR OPERATOR	6	99.1	99.1	87	87
367	POURER	4	98.9	98.9	57	57
277	PN DISC GRINDER OPEK	4	95.2	96.6	40	46
275	PN GRINDER UPER	6	90.7	90.7	36	36
443	SHAKEOUT TABLE OPEK	2	101.5	101.5	35	35
505	CUT-OFF WHEEL OPER	2	99.8	99.8	30	30
395	SANDSLINGER OPERATOR	2	99.2	99.2	29	29
338	SHELLHOLDER OPERATOR	4	91.5	91.5	27	27
421	SHELL CORE OPERATOR	4	91.5	91.5	27	27
278	PN CONE GRINDER OPEK	3	93.1	94.5	24	24
279	SHING GRINDER OPER	3	92.0	92.0	21	21
326	ARC FURNACE OPERATOR	1	101.1	101.1	16	16
337	HI PRESS. MOLDER OP	2	92.8	92.8	15	15
405	SPIRALBLAST OPEKATOK	1	96.5	96.5	11	11
281	STAND STONE GRINDER	2	90.0	90.0	11	11
388	SANDMULLER OPERATOR	1	95.9	95.9	10	10
342	PACEMAKER MOLDER OPEK	1	94.2	94.2	9	9
433	CORE ROOM WORKER	17	79.6	79.6	9	9
467	WHELLABRATOR OPER	2	87.8	87.8	8	8
350	MOLD WASH MURKEK	1	92.5	92.5	7	7
327	INDUCT. FURNACE OPEK	2	86.3	86.3	6	6

TOTAL NUMBER OF PERSONNEL	70
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	70
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.)	70
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	47
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (H.C.)	47
LEVEL WEIGHTED POPULATION (MEAN)	524.7
LEVEL WEIGHTED POPULATION (H.C.)	534.3

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332 PLANT NO. = 3 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	W.C.	DAILY NOISE DOSE MEAN	W.C.
326	ARC FURNACE OPERATOR	1	100.4	100.4	4.22	4.22
443	SHAKEOUT TABLE OPER	2	99.6	99.6	3.81	3.81
505	CUT-OFF WHEEL OPER	2	98.3	98.3	3.17	3.17
395	SANDSLINGER OPERATOR	2	97.6	97.6	2.87	2.87
367	POURER	4	97.2	97.2	2.72	2.72
302	ARC-AIR OPERATOR	6	97.0	97.0	2.64	2.64
388	SANDMULLER OPERATOR	1	95.5	95.5	2.14	2.14
405	SPINALBLAST OPERATOR	1	95.4	95.4	2.12	2.12
277	PN DISC GRINDER OPER	4	93.0	94.4	1.52	1.84
342	PACEMAKER MOLDER OPER	1	91.4	91.4	1.21	1.21
337	HI PRESS. MOLDER OP	2	91.4	91.4	1.21	1.21
278	PN CONE GRINDER OPER	3	90.7	92.2	1.10	1.36
279	SWING GRINDER OPER	3	90.4	90.4	1.06	1.06
338	SHELLMOLDER OPERATOR	4	<90.0	<90.0	0.87	0.87
421	SHELL CURE OPERATOR	4	<90.0	<90.0	0.87	0.87
350	MOLD WASH WORKER	1	<90.0	<90.0	0.87	0.87
275	PN GRINDER OPER	6	<90.0	<90.0	0.76	0.76
281	STAND STONE GRINDER	2	<90.0	<90.0	0.69	0.69
327	INDUCT. FURNACE OPER	2	<90.0	<90.0	0.00	0.00
433	CORE ROOM WORKER	17	<90.0	<90.0	0.00	0.00
467	WHELLBLATOR OPER	2	<90.0	<90.0	0.00	0.00

TOTAL NUMBER OF PERSONNEL = 70
 TOTAL NUMBER OVEREXPOSED (MEAN) = 32
 TOTAL NUMBER OVEREXPOSED (W.C.) = 32

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PERS.	PRIORITY INDEX	NORM. P.I.
1452	CORE OVEN	1	82.0	82.0	34	17.0	0.243
1160	ARC AIR GOUGERS	1	102.0	102.0	18	6.7	0.095
1120	PN WHEEL GRINDER	1	93.0	93.0	6	5.1	0.073
1437	ARC FURNACE	1	102.0	102.0	14	4.4	0.063
1118	PN DISC GRINDER	2	98.0	99.4	27	4.1	0.058
1336	SHELL MOLDER	1	94.0	94.0	27	3.8	0.055
1450	SHELL CURE	1	94.0	94.0	16	3.7	0.053
1507	CUT-OFF WHEEL	1	102.0	102.0	25	3.3	0.048
1494	SHAKEOUT TABLE	1	105.0	105.0	4	2.9	0.042
1493	BACK. ONLY CONTR.	0	98.0	98.0	10	2.8	0.040
1119	PN CONE GRINDER	3	95.7	97.2	7	2.8	0.039
1512	SHING GRINDER	1	93.0	93.0	3	2.6	0.038
1499	WHEELABRATOR	1	89.0	89.0	2	1.6	0.023
1491	SHAKEOUT CONVEYOR	1	98.0	98.0	8	1.6	0.022
1517	STAND STONE GRIND	1	91.0	91.0	2	1.5	0.022
1438	INDUCT. FURNACE	1	87.0	87.0	2	1.4	0.020
1337	HI-PRESS. MOLDER	1	92.0	92.0	3	1.2	0.017
1373	SANDMULLER	1	96.0	96.0	13	1.0	0.014
1511	BACK/ELEC GRINDER	1	88.0	88.0	5	0.7	0.011
1195	SPIRALBLAST	1	98.0	98.0	1	0.6	0.008
1395	BACK/EXHAUST FAN	1	87.0	87.0	23	0.5	0.008
1387	SANDSLINGER	1	98.0	98.0	2	0.2	0.003
1137	PN CHISEL	1	102.0	102.0	4	0.1	0.001
1146	PN TAMPER	1	90.0	90.0	2	0.1	0.001
1340	MOLDER-PACEMAKER	1	82.0	82.0	1	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA

8-HR PERMISSIBLE LEVEL = 90.0 DBA

EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PKRS.	PRIORITY INDEX	NUM. P.I.
1160	ARC AIR GOUGERS	1	102.0	102.0	6	6.0	0.188
1437	ARC FURNACE	1	102.0	102.0	5	4.1	0.128
1118	PN DISC GRINDER	2	98.0	99.4	4	4.0	0.125
1493	BACK. ONLY CONTR.	0	98.0	98.0	10	3.5	0.109
1119	PN CONE GRINDER	3	95.7	97.2	3	3.0	0.094
1512	SHING GRINDER	1	93.0	93.0	3	3.0	0.094
1494	SHAKEOUT TABLE	1	105.0	105.0	4	2.5	0.079
1507	CUT-OFF WHEEL	1	102.0	102.0	2	2.0	0.063
1337	HI-PRESS. MULDER	1	92.0	92.0	2	1.3	0.041
1373	SANDMULLER	1	96.0	96.0	1	0.9	0.027
1491	SHAKEOUT CONVEYOR	1	98.0	98.0	3	0.6	0.020
1195	SPIRALBLAST	1	98.0	98.0	1	0.6	0.018
1387	SANDSLINGER	1	98.0	98.0	2	0.3	0.010

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1448	CORE OVEN	2	88.0	88.0	50	20.7	0.296
1103	PNEUMATIC GRINDER	6	96.0	97.5	40	11.9	0.171
1484	SHAKEOUT/DUMPOUT	2	101.5	101.5	22	7.3	0.105
1158	WELD/BURN/GOUGING	1	102.0	102.0	18	6.7	0.095
1434	FURNACE	2	94.5	94.5	16	5.8	0.083
1333	MOLDER	3	89.3	89.3	31	5.1	0.072
1510	ELECTRIC GRINDERS	3	90.7	90.7	10	4.9	0.070
1505	CUT-OFF WHEEL	1	102.0	102.0	25	3.3	0.048
1497	WHEELABRATOR	1	89.0	89.0	2	1.6	0.023
1371	MULLER	1	96.0	96.0	13	1.0	0.014
1187	ABRASIVE BLASTING	1	98.0	98.0	1	0.6	0.008
1394	EXHAUST FAN	2	90.0	90.0	23	0.5	0.008
1385	SANDSLINGER	1	98.0	98.0	2	0.2	0.003
1135	PNEUMATIC CHISEL	1	102.0	102.0	4	0.1	0.001
1144	PNEUMATIC TAMPER	1	90.0	90.0	2	0.1	0.001

ENVIRONMENTAL PROTECTION AGENCY

86N JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PENS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	6	96.5	97.5	7	7.0	0.219
1484	SHAKEOUT/DUMPOUT	2	101.5	101.5	17	6.6	0.208
1156	WELD/BURN/GUUGING	1	102.0	102.0	6	6.0	0.188
1434	FURNACE	2	94.5	94.5	5	4.1	0.126
1510	ELECTRIC GRINDERS	3	90.7	90.7	6	3.0	0.094
1505	CUT-OFF WHEEL	1	102.0	102.0	2	2.0	0.063
1333	HOLDER	3	89.5	89.5	3	1.3	0.041
1371	MULLER	1	96.6	96.0	1	0.9	0.027
1187	ABRASIVE BLASTING	1	98.0	98.0	1	0.6	0.018
1385	SANDSLINGER	1	98.0	98.0	2	0.3	0.010
1392	HYDRAULIC PUMP	1	96.0	96.0	2	0.2	0.006

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 4

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. MT. MEAN	PUP. N.C.
42100	SHELL CORE OPERATOR	8	94.7	94.7	77	77
34000	SQUEZ/JOLT MOLDER OP	7	95.2	95.8	71	75
28000	WHEEL GRINDER OPER	5	98.4	98.4	68	68
44000	SHAKEOUT OPERATOR	8	89.4	89.4	41	41
28100	STAND STONE GRINDER	5	91.2	93.4	32	42
36800	MELTER/POURER	6	88.8	88.8	28	28
33900	AUTO-MOLDER OPERATOR	2	96.1	96.1	22	22
50500	CUT-OFF WHEEL OPER	2	96.1	96.8	22	23
40200	ROTOBLAST OPERATOR	2	89.3	92.1	10	14
38500	MULLER OPER	1	90.2	92.5	5	7

ENVIRONMENTAL PROTECTION AGENCY

888 JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 dBA
8-HR PERMISSIBLE LEVEL = 90.0 dBA
EXCHANGE RATE = 5 dBA

SIC CODE = 332

PLANT NO. = 4

NO. DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEOPLE	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
28000	WHEEL GRINDER OPER	5	96.8	95.8	2.57	2.57
33900	AUTO-MULDER OPERATOR	2	95.4	95.4	2.11	2.11
50500	CUT-OFF WHEEL OPER	2	94.9	95.6	1.98	2.16
34000	SQUEZ/JOLT MULDER OP	7	93.9	94.6	1.72	1.90
42100	SHELL COKE OPERATOR	8	93.4	93.4	1.61	1.61
28100	STAND STONE GRINDER	5	90.2	90.3	1.03	1.38
38500	MULLER OPER	1	<90.0	<90.0	0.66	0.98
40200	ROTUBLAST OPERATOR	2	<90.0	90.2	0.62	1.03
44000	SHAKEOUT OPERATOR	8	<90.0	<90.0	0.57	0.57
36800	MELTER/PURER	6	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. MEAN	WT. POP. H.C.
421	SHELL CORE OPERATOR	8	94.7	94.7	77	77
340	SQUEZ/JOLT HOLDER OP	7	95.2	95.8	71	75
280	MHEEL GRINDER OPER	5	98.4	98.4	68	68
440	SHAKEOUT OPERATOR	8	89.4	89.4	41	41
281	STAND STONE GRINDER	5	91.2	93.4	32	42
368	MELTER/POURER	6	88.8	88.8	28	28
339	AUTO-HOLDER OPERATOR	2	96.1	95.1	22	22
905	CUT-OFF MHEEL OPER	2	96.1	96.8	22	23
402	ROTOBLAST OPERATOR	2	89.3	92.1	10	14
385	MULLEK OPEK	1	90.2	92.5	5	7

TOTAL NUMBER OF PERSONNEL	46
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	46
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.)	46
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	30
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (H.C.)	32
LEVEL WEIGHTED POPULATION (MEAN)	380.6
LEVEL WEIGHTED POPULATION (H.C.)	402.9

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
280	WHEEL GRINDER OPER	5	96.8	95.8	2.57	2.57
339	AUTO-MOLDER OPERATOR	2	95.4	95.4	2.11	2.11
505	CUT-OFF WHEEL OPER	2	94.9	95.8	1.98	2.18
340	SQUEZ/JOLT MOLDER OP	7	93.9	94.6	1.72	1.90
421	SHELL CORE OPERATOR	8	93.4	93.4	1.61	1.61
281	STAND STONE GRINDER	5	90.2	92.3	1.03	1.36
385	MULLER OPER	1	<90.0	<90.0	0.66	0.98
402	ROTUOLAST OPERATOR	2	<90.0	90.2	0.62	1.03
440	SHAKEOUT OPERATOR	8	<90.0	<90.0	0.57	0.57
368	MELTER/PURER	6	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 46
TOTAL NUMBER OVEREXPOSED (MEAN) = 29
TOTAL NUMBER OVEREXPOSED (M.C.) = 31

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1450	SHELL CORE	1	96.0	96.0	54	9.2	0.199
1338	SQUEZ/JOLT MOLDER	2	96.5	97.2	22	7.5	0.163
1486	SHAKEOUT	1	91.0	91.0	8	5.7	0.124
1513	WHEEL GRINDER	1	102.0	102.0	5	4.6	0.099
1438	INDUCT. FURNACE	2	90.0	90.0	21	4.5	0.099
1517	STAND STONE GRIND	2	92.5	96.0	5	2.7	0.059
1374	MULLER	2	92.0	94.8	47	2.7	0.058
1117	PH DRILL GRINDER	1	91.0	91.0	10	2.3	0.050
1335	AUTO-MOLDER	1	97.0	97.0	2	2.0	0.042
1507	CUT-OFF WHEEL	2	97.5	98.2	2	1.9	0.042
1194	ROTOBLAST	2	91.5	93.6	2	1.6	0.036
1397	EXHAUST FAN	1	92.0	92.0	15	1.4	0.029

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PEKS.	PRIORITY INDEX	NUM. P.I.
1450	SHELL COKE	1	96.0	96.0	8	8.0	0.276
1338	SQUEZ/JOLT MOLDER	2	96.5	97.2	7	7.0	0.241
1513	WHEEL GRINDER	1	102.0	102.0	5	4.1	0.142
1117	PN DRILL GRINDER	1	91.0	91.0	10	3.1	0.108
1517	STAND STONE GRIND	2	92.5	96.0	5	2.8	0.095
1339	AUTO-MOLDER	1	97.0	97.0	2	2.0	0.069
1507	CUT-OFF WHEEL	2	97.5	96.2	2	2.0	0.069

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PERS.	PRIORITY INDEX	NOI. P.I.
1333	HOLDER	3	96.7	97.4	24	9.4	0.205
1448	CORE OVEN	2	89.5	89.5	54	9.2	0.199
1510	ELECTRIC GRINDERS	3	95.7	94.2	10	7.3	0.158
1484	SHAKEOUT/DUMPOUT	1	91.0	91.0	8	5.7	0.124
1434	FURNACE	3	89.0	89.0	21	4.5	0.099
1371	MULLER	2	92.0	94.8	47	2.7	0.058
1103	PNEUMATIC GRINDER	1	91.0	91.0	10	2.3	0.050
1505	CUT-OFF WHEEL	2	97.5	98.2	2	1.9	0.042
1187	ABRASIVE BLASTING	2	91.5	93.6	2	1.6	0.036
1394	EXHAUST FAN	1	92.0	92.0	15	1.4	0.029

ENVIRONMENTAL PROTECTION AGENCY

BSN JJB NJ. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 4

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1333	MOLDER	3	96.7	97.4	9	9.0	0.310
1448	CURE OVEN	2	89.5	89.5	8	8.0	0.276
1510	ELECTRIC GRINDERS	3	95.7	99.2	10	8.9	0.237
1103	PNEUMATIC GRINDER	1	91.0	91.0	10	3.1	0.106
1505	CUT-OFF WHEEL	2	97.5	98.2	2	2.0	0.069

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 5

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
27500	PN GRINDER OPER	62	93.6	95.0	536	685
30303	ARC WELDER/A	10	99.6	103.7	151	206
30300	ARC WELDER/A	10	97.9	102.0	131	182
31002	ARC AIR GOUGER	4	106.2	110.4	97	125
34300	MOLDMASTER OPERATOR	6	98.1	100.1	80	94
44300	SHAKEOUT TABLE OPER	4	98.9	101.7	57	71
32600	ARC FURNACE OPERATOR	4	98.0	102.9	53	77
31003	ARC AIR GOUGER	2	106.8	111.0	50	64
31001	ARC AIR GOUGER	2	106.2	110.4	48	62
31800	GAS BURNER	2	105.9	110.1	47	61
31900	POWDER BURNER	2	105.9	110.1	47	61
34102	FLOOR MOLDER	4	96.4	97.7	45	51
34103	FLOOR MULDER	4	96.1	97.4	44	50
31000	ARC AIR GOUGER	2	104.8	108.9	44	57
28100	STAND STONE GRINDER	10	88.3	88.3	44	44
36700	POURER	8	87.7	87.7	32	32
27900	SWING GRINDER OPER	4	92.8	92.8	31	31
50500	CUT-OFF WHEEL OPER	2	99.1	99.1	28	28
26406	SERVICEMAN	4	91.4	94.4	26	37
26402	SERVICEMAN	4	91.0	91.0	25	25
40400	MACHINE BLASTER	4	91.0	91.0	25	25
33001	LADLE PRE-HEATER	2	97.6	108.4	25	55
26600	HELPER	6	87.9	87.9	24	24
50600	TABOR CUT-OFF SAW OP	2	94.1	94.1	18	18
40201	ROTOBLAST OPERATOR	2	93.8	97.4	17	24
34101	FLOOR MOLDER	4	88.3	88.3	17	17
40200	ROTOBLAST OPERATUR	2	93.4	96.9	16	23
40300	HAND BLASTER	2	92.3	92.3	15	15
46700	MHELLABRATOR OPER	4	87.1	89.1	14	19
20300	WORKSAVER OPERATOR	6	84.8	84.8	14	14
20202	FORKLIFT OPERATOR	2	91.4	93.9	13	17
48000	OVERHEAD CRANE OPER	2	90.0	90.0	11	11
48002	OVERHEAD CRANE OPER	2	89.0	89.0	9	9
53400	PRESS OPERATOR	6	83.0	84.0	9	12
33100	LADLE SKIMMER	2	88.8	88.8	9	9
48001	OVERHEAD CRANE OPER	2	88.4	86.4	9	9
30301	ARC WELDER/A	4	84.1	84.1	8	8
20200	FORKLIFT OPERATOR	2	87.0	87.0	7	7
33000	LADLE PRE-HEATER	2	86.9	86.9	7	7
48003	OVERHEAD CRANE OPER	2	86.8	86.8	6	6

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. WT. MEAN	POP. N.C.
26501	LABORER	2	86.8	86.8	6	6
26404	SERVICEMAN	2	86.1	90.5	6	11
26405	SERVICEMAN	2	86.0	86.0	6	6
26410	SERVICEMAN	2	86.0	88.6	6	9
26500	LABORER	2	86.0	88.6	6	9
33002	LADLE PRE-HEATER	2	86.0	88.6	6	9
34100	FLOOR MOLDER	2	86.0	88.6	6	9
33101	LADLE SKIMMER	2	85.5	88.5	5	9
30302	ARC WELDER/A	2	85.1	85.1	5	5
26401	SERVICEMAN	2	84.7	84.7	4	4
26400	SERVICEMAN	2	84.1	84.1	4	4
26409	SERVICEMAN	4	81.4	83.6	4	7
26407	SERVICEMAN	2	83.5	87.6	3	7
46100	INSPECTOR	2	83.0	83.0	3	3
26403	SERVICEMAN	2	82.8	84.3	3	4
26408	SERVICEMAN	2	82.0	82.0	2	2
20201	FORKLIFT OPERATOR	2	76.0	78.6	0	0
26502	LABORER	2	<75.0	<75.0	0	0

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
31003	ARC AIR GOUGER	2	106.1	110.3	9.37	16.76
31001	ARC AIR GOUGER	2	105.2	109.4	8.20	14.66
31002	ARC AIR GOUGER	4	105.2	109.4	8.20	14.66
31800	GAS BURNER	2	104.6	108.8	7.61	13.62
31900	POWDER BURNER	2	104.6	108.8	7.61	13.62
31000	ARC AIR GOUGER	2	102.8	106.9	5.86	10.47
44300	SHAKEOUT TABLE OPER	4	98.6	101.2	3.29	4.73
50500	CUT-OFF WHEEL OPER	2	98.4	98.4	3.20	3.20
32600	ARC FURNACE OPERATOR	4	98.9	101.9	2.61	3.19
34300	MOLDMASTER OPERATOR	6	98.9	98.7	2.61	3.32
30303	ARC WELDER/A	10	94.1	95.3	1.76	3.14
34102	FLOOR MOLDER	4	93.9	95.1	1.72	2.02
50600	TABOR CUT-OFF SAW OP	2	93.4	93.4	1.60	1.60
40201	ROTOBLAST OPERATOR	2	93.3	96.9	1.59	2.59
33001	LADLE PRE-HEATER	2	92.7	103.7	1.46	6.72
40200	ROTOBLAST OPERATOR	2	92.4	95.0	1.40	2.28
34103	FLOOR MOLDER	4	92.3	93.7	1.38	1.66
27900	SWING GRINDER OPER	4	92.1	92.1	1.34	1.34
27500	PN GRINDER OPER	62	91.6	93.6	1.24	1.65
30300	ARC WELDER/A	10	91.1	95.3	1.17	2.04
40300	HAND BLASTER	2	90.0	90.0	1.00	1.00
26402	SERVICEMAN	4	<90.0	<90.0	0.99	0.99
40400	MACHINE BLASTER	4	<90.0	<90.0	0.99	0.99
26406	SERVICEMAN	4	<90.0	91.4	0.75	1.22
33100	LADLE SKIMMER	2	<90.0	<90.0	0.57	0.57
20202	FORKLIFT OPERATOR	2	<90.0	<90.0	0.46	0.66
20200	FORKLIFT OPERATOR	2	<90.0	<90.0	0.34	0.34
36700	POURER	8	<90.0	<90.0	0.34	0.34
34101	FLOOR MOLDER	4	<90.0	<90.0	0.17	0.17
26501	LABORER	2	<90.0	<90.0	0.11	0.11
33001	LADLE PRE-HEATER	2	<90.0	<90.0	0.11	0.11
48002	OVERHEAD CRANE OPER	2	<90.0	<90.0	0.11	0.11
26600	HELPER	6	<90.0	<90.0	0.11	0.11
20201	FORKLIFT OPERATOR	2	<90.0	<90.0	0.00	0.00
20300	WORKSAVER OPERATOR	6	<90.0	<90.0	0.00	0.00
26400	SERVICEMAN	2	<90.0	<90.0	0.00	0.00

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
26401	SERVICEMAN	2	<90.0	<90.0	0.00	0.0
26403	SERVICEMAN	2	<90.0	<90.0	0.00	0.0
26404	SERVICEMAN	2	<90.0	<90.0	0.00	0.83
26405	SERVICEMAN	2	<90.0	<90.0	0.00	0.0
26407	SERVICEMAN	2	<90.0	<90.0	0.00	0.42
26408	SERVICEMAN	2	<90.0	<90.0	0.00	0.0
26409	SERVICEMAN	4	<90.0	<90.0	0.00	0.0
26410	SERVICEMAN	2	<90.0	<90.0	0.00	0.0
26500	LABORER	2	<90.0	<90.0	0.00	0.0
26502	LABORER	2	<90.0	<90.0	0.00	0.0
28100	STAND STONE GRINDER	10	<90.0	<90.0	0.00	0.0
30301	ARC MELTER/A	4	<90.0	<90.0	0.00	0.0
30302	ARC MELTER/A	2	<90.0	<90.0	0.00	0.0
33002	LADLE PRE-HEATER	2	<90.0	<90.0	0.00	0.0
33101	LADLE SKIMMER	2	<90.0	<90.0	0.00	0.42
34100	FLOOR MOLDER	2	<90.0	<90.0	0.00	0.0
46100	INSPECTOR	2	<90.0	<90.0	0.00	0.0
46700	WHELLABRATOR OPER	4	<90.0	<90.0	0.00	0.0
48000	OVERHEAD CRANE OPER	2	<90.0	<90.0	0.00	0.0
48001	OVERHEAD CRANE OPER	2	<90.0	<90.0	0.00	0.0
48003	OVERHEAD CRANE OPER	2	<90.0	<90.0	0.00	0.0
53400	PRESS OPERATOR	6	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL M.C.	LEV. WT. MEAN	PUP. M.C.
275	PN GRINDER OPER	62	93.6	95.0	536	685
303	ARC WELDER/A	26	95.5	98.6	296	402
310	ARC AIR GOUGER	10	106.0	110.2	240	310
341	FLOOR MOLDER	14	92.5	93.6	113	128
264	SERVICEMAN	28	85.9	87.6	92	122
343	MOLDMASTER OPERATOR	6	98.1	100.1	80	94
443	SHAKEOUT TABLE OPER	4	98.9	101.7	57	71
326	ARC FURNACE OPERATOR	4	98.0	102.9	53	77
318	GAS BURNER	2	105.9	110.1	47	61
319	POWDER BURNER	2	105.9	110.1	47	61
281	STAND STONE GRINDER	10	88.3	88.3	44	44
330	LADLE PRE-HEATER	6	90.1	94.6	38	71
480	OVERHEAD CRANE OPER	8	88.6	88.6	37	37
402	ROTOBLAST OPERATOR	4	93.6	97.1	34	48
367	POURER	8	87.7	87.7	32	32
279	SHING GRINDER OPER	4	92.8	92.8	31	31
505	CUT-OFF WHEEL OPER	2	99.1	99.1	28	28
404	MACHINE BLASTER	4	91.0	91.0	25	25
266	HELPER	6	87.9	87.9	24	24
202	FORKLIFT OPERATOR	6	84.8	86.5	20	25
506	TABOR CUT-OFF SAW OP	2	94.1	94.1	18	18
331	LADLE SKIMMER	4	87.2	88.7	15	18
403	HAND BLASTER	2	92.3	92.3	15	15
467	WHEELABRATOR OPER	4	87.1	89.1	14	19
203	WORKSAVER OPERATOR	6	84.8	84.8	14	14
265	LABORER	6	79.3	80.1	12	16
534	PRESS OPERATOR	6	83.0	84.0	9	12
461	INSPECTOR	2	83.0	83.0	3	3

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL 246
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 246
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.) 246
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 148
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.) 150
LEVEL WEIGHTED POPULATION (MEAN) 1988.5
LEVEL WEIGHTED POPULATION (W.C.) 2504.2

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO. DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	SOUND LEVEL M.L.	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE M.L.
310	ARC AIR COUGER	10	105.0	109.2	7.96	14.24
318	GAS BURNER	2	104.6	108.8	7.61	13.62
319	POWDER BURNER	2	104.6	108.8	7.61	13.62
443	SHAKEOUT TABLE OPER	4	98.6	101.2	3.29	4.73
505	CUT-OFF WHEEL OPER	2	98.4	98.4	3.20	3.20
326	ARC FURNACE OPERATOR	4	96.9	101.9	2.61	5.19
343	MOLDMASTER OPERATOR	6	96.9	98.7	2.61	3.32
506	TABOR CUT-OFF SAM OP	2	93.4	93.4	1.60	1.60
402	ROTOBLAST OPERATOR	4	92.9	96.4	1.49	2.44
279	SHING GRINDER OPER	4	92.1	92.1	1.34	1.34
275	PN GRINDER OPER	62	91.6	93.6	1.24	1.65
303	ARC WELDER/A	26	90.9	95.1	1.13	2.01
403	HAND BLASTER	2	90.0	90.0	1.00	1.00
404	MACHINE BLASTER	4	<90.0	<90.0	0.99	0.99
341	FLOOR MOLDER	14	<90.0	90.7	0.94	1.11
330	LADLE PRE-HEATER	6	<90.0	95.9	0.52	2.28
367	POURER	8	<90.0	<90.0	0.34	0.34
331	LADLE SKIMMER	4	<90.0	<90.0	0.29	0.50
202	FORKLIFT OPERATOR	6	<90.0	<90.0	0.27	0.34
264	SERVICEMAN	28	<90.0	<90.0	0.25	0.40
266	HELPER	6	<90.0	<90.0	0.11	0.11
265	LABORER	6	<90.0	<90.0	0.04	0.04
480	OVERHEAD CRANE OPER	8	<90.0	<90.0	0.03	0.03
203	WORKSAYEK OPERATOR	6	<90.0	<90.0	0.00	0.0
281	STAND STONE GRINDER	10	<90.0	<90.0	0.00	0.0
461	INSPECTOR	2	<90.0	<90.0	0.00	0.0
467	WHELLOKATOR OPER	4	<90.0	<90.0	0.00	0.0
534	PRESS OPERATOR	6	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 9035

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 248
TOTAL NUMBER OVEREXPOSED (MEAN) = 132
TOTAL NUMBER OVEREXPOSED (M.C.) = 136

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1160	ARC AIR GOUGERS	4	107.8	111.9	236	39.5	0.161
1118	PN DISC GRINDER	3	99.0	102.6	238	28.5	0.116
1120	PN WHEEL GRINDER	8	95.3	98.8	240	19.3	0.079
1492	SHAKEOUT TABLE	2	100.0	102.8	40	12.6	0.051
1517	STAND STONE GRIND	1	89.0	89.0	154	11.6	0.047
1437	ARC FURNACE	2	99.5	104.4	44	11.0	0.045
1117	PN DRILL GRINDER	4	94.0	95.8	238	10.8	0.044
1387	SANDSLINGER	1	98.0	98.0	60	10.7	0.044
1119	PN CONE GRINDER	4	93.5	94.8	238	10.5	0.042
1194	ROTOBLAST	2	94.5	98.0	32	9.1	0.037
1159	BACK/HLD/BRN/GOUG	1	87.8	87.8	36	8.8	0.036
1193	ABRASIVE BLAST	1	92.0	92.0	8	7.5	0.030
1146	PN TAMPER	2	101.0	102.4	8	7.2	0.029
1499	WHEELABRATOR	2	87.5	84.6	30	6.2	0.025
1471	BACK/OVERHD CRANE	1	90.0	90.0	12	6.0	0.024
1341	MOLDMASTER	3	101.0	103.6	8	5.9	0.024
1535	VENTILATION	1	83.0	83.0	34	5.1	0.021
1512	SHING GRINDER	1	93.7	93.7	146	5.0	0.020
1166	WELDING/ARC	1	83.0	83.0	168	4.8	0.019
1443	LADLE PRE-HEAT	3	89.3	94.5	40	4.7	0.019
1508	CUT-OFF WHEEL	1	100.0	100.0	144	4.2	0.017
1438	INDUCT. FURNACE	1	86.0	86.0	74	2.6	0.011
1442	FURNACE	1	86.0	86.0	40	2.4	0.010
1509	TABOR CUT-OFF MHL	1	95.0	95.0	2	2.0	0.008
1137	PN CHISEL	3	104.3	115.3	2	1.9	0.008
1375	SAND HOPPER/VIB	5	97.6	100.1	6	1.9	0.008
1189	ABRASIVE BLAST	1	95.0	95.0	2	1.8	0.008
1336	SHELL MOLDER	2	93.5	97.0	40	1.8	0.007
1482	PN VIBRATOR	1	96.0	96.0	40	0.9	0.004
1542	COMPRESSED AIR	3	95.3	103.8	2	0.6	0.002

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	N.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUMM. P.I.
1802	FORKLIFT	1	83.0	83.0	2	0.2	0.001

ENVIRONMENTAL PROTECTION AGENCY

B&N JOB NO. 4635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	AEAN LJ	W.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1160	ARC AIR GOUGERS	4	107.8	111.9	42	34.3	0.260
1118	PN DISC GRINDER	3	99.0	102.6	62	21.6	0.163
1120	PN WHEEL GRINDER	8	95.3	98.8	62	16.8	0.143
1119	PN CONE GRINDER	4	93.5	94.8	62	10.8	0.082
1117	PN DRILL GRINDER	4	94.0	95.8	62	10.8	0.082
1146	PN TAMPEK	2	101.0	102.4	8	7.2	0.055
1492	SHAKEOUT TABLE	2	100.0	102.8	12	4.5	0.034
1194	ROTUBLAST	2	94.5	96.0	4	4.0	0.030
1437	ARC FURNACE	2	99.5	104.4	4	4.0	0.030
1512	SHING GRINDER	1	93.7	93.7	4	4.0	0.030
1341	MOLDMASTER	3	101.0	103.6	6	3.7	0.026
1375	SAND HOPPER/VIB	5	97.6	100.1	6	2.3	0.017
1137	PN CHISEL	3	104.3	115.3	2	2.0	0.015
1508	CUT-OFF WHEEL	1	100.0	100.0	2	2.0	0.015
1509	TABUK CUT-OFF WHL	1	95.0	95.0	2	2.0	0.015

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	19	95.2	98.1	954	69.0	0.281
1158	WELD/BURN/GOUGING	6	100.3	104.5	440	53.0	0.216
1434	FURNACE	7	91.3	96.4	198	20.6	0.084
1187	ABRASIVE BLASTING	4	94.0	97.5	42	18.5	0.075
1510	ELECTRIC GRINDERS	2	91.3	91.3	300	16.6	0.067
1484	SHAKEOUT/DUMPOUT	2	100.0	102.8	40	12.6	0.051
1385	SANDSLINGER	1	98.0	98.0	60	10.7	0.044
1333	MOLDER	8	102.7	107.8	48	7.7	0.031
1144	PNEUMATIC TAMPER	2	101.0	102.4	8	7.2	0.029
1497	WHEELABRATOR	2	87.5	89.6	30	6.2	0.025
1505	CUT-OFF WHEEL	2	97.5	97.5	146	6.1	0.025
1460	LATHE	2	92.0	92.0	12	6.0	0.024
1135	PNEUMATIC CHISEL	3	104.3	115.3	2	1.9	0.008
1371	MULLER	5	97.6	100.1	6	1.9	0.008
1480	PNEUMATIC VIBRATOR	1	96.0	96.0	40	0.9	0.004

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NO.OF PKRS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	19	95.2	98.1	248	62.0	0.470
1158	WELD/BURN/GOUGING	8	100.3	104.5	76	34.3	0.200
1144	PNEUMATIC TAMPER	2	101.0	102.4	8	7.2	0.055
1484	SHAKEOUT/DUMPOUT	2	100.0	102.8	12	4.5	0.034
1434	FURNACE	7	91.3	96.4	4	4.0	0.030
1187	ABRASIVE BLASTING	4	94.0	97.5	4	4.0	0.030
1510	ELECTRIC GRINDERS	2	91.3	91.3	6	4.0	0.030
1505	CUT-OFF WHEEL	2	97.5	97.5	4	4.0	0.030
1333	MOLDER	8	102.7	107.8	6	3.7	0.028
1371	MULLER	5	97.8	100.1	6	2.3	0.017
1135	PNEUMATIC CHISEL	3	104.3	115.3	2	2.0	0.015

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

B&M JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEAS.	SOUND MEAN	LEVEL M.C.	LEV. HT. MEAN	PUP. M.C.
27501	PN GRINDER OPER	3	93.3	94.4	25	28
34000	SQUEZ/JOLT MOLDER OP	5	87.8	87.8	20	20
42900	OIL-BAKE COREMAKER	2	88.3	88.3	8	8
27500	PN GRINDER UPER	1	89.3	90.7	5	6
40200	ROTOBLAST OPERATOR	1	89.2	89.2	5	5
32900	CUPOLA FURNACE OPER	2	84.7	84.7	4	4
30700	ACETYLENE WELDER	1	85.7	85.7	2	2
27000	FOREMAN	1	84.3	84.3	2	2
34100	FLOOR MOLDER	4	77.3	77.3	0	0
38500	MULLER OPER	1	77.3	77.3	0	0
42200	NO-BAKE CORE OPER	1	76.0	80.2	0	0
42201	NO-BAKE CORE OPER	1	<75.0	78.2	0	0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 0

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL MEAN	LEVEL H.C.	DAILY NOISE DOSE MEAN	H.C.
27501	PN GRINDER OPER	3	90.6	91.9	1.09	1.30
27500	PN GRINDER OPER	1	<90.0	<90.0	0.52	0.70
40200	ROTORBLAST OPERATOR	1	<90.0	<90.0	0.35	0.35
34000	SQUEEZ/JULT MOLDER OP	5	<90.0	<90.0	0.31	0.31
42900	GIL-BAKE COREMAKER	2	<90.0	<90.0	0.16	0.16
27000	FOREMAN	1	<90.0	<90.0	0.00	0.0
30700	ACETYLENE WELDER	1	<90.0	<90.0	0.00	0.0
32900	LUPULA FURNACE OPER	2	<90.0	<90.0	0.00	0.0
34100	FLOOR MOLDER	4	<90.0	<90.0	0.00	0.0
38500	MULLER OPER	1	<90.0	<90.0	0.00	0.0
42200	NO-BAKE CORE OPER	1	<90.0	<90.0	0.00	0.0
42201	NO-BAKE CURE OPER	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. WT. MEAN	POP. N.C.
275	PN GRINDER OPER	4	92.3	93.5	30	34
340	SQUEZ/JOLT MOLDER DP	5	87.8	87.8	20	20
429	OIL-BAKE COREMAKER	2	88.3	88.3	8	8
402	ROTOBLAST OPERATOR	1	89.2	89.2	5	5
329	CUPOLA FURNACE OPER	2	84.7	84.7	4	4
307	ACETYLENE WELDER	1	85.7	85.7	2	2
270	FOREMAN	1	84.3	84.3	2	2
341	FLOOR MOLDER	4	77.3	77.3	0	0
385	MULLER OPER	1	77.3	77.3	0	0
422	NO-BAKE CUKE OPER	2	<75.0	77.2	0	0

TOTAL NUMBER OF PERSONNEL	23
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	22
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (N.C.)	23
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	3
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (N.C.)	4
LEVEL WEIGHTED POPULATION (MEAN)	75.0
LEVEL WEIGHTED POPULATION (N.C.)	80.2

ENVIRONMENTAL PROTECTION AGENCY

MAN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332 PLANT NO. = 5 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
275	PM GRINDER OPER	4	<90.0	91.0	0.95	1.15
402	KOTOBLAST OPERATUR	1	<90.0	<90.0	0.35	0.35
340	SQUEZ/JOLT HOLDER OP	5	<90.0	<90.0	0.31	0.31
429	OIL-BAKE COKE MAKER	2	<90.0	<90.0	0.16	0.16
270	FOREMAN	1	<90.0	<90.0	0.00	0.0
307	ACETYLENE WELDER	1	<90.0	<90.0	0.00	0.0
329	CUPOLA FURNACE OPER	2	<90.0	<90.0	0.00	0.0
341	FLOOR MULDER	4	<90.0	<90.0	0.00	0.0
385	MULLER OPER	1	<90.0	<90.0	0.00	0.0
422	NO-BAKE CORE OPER	2	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 23
TOTAL NUMBER OVEREXPOSED (MEAN) = 3
TOTAL NUMBER OVEREXPOSED (M.C.) = 3

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1440	FURNACE	1	86.0	86.0	30	6.7	0.303
1120	PN WHEEL GRINDER	6	95.8	97.6	10	3.5	0.158
1482	PN VIBRATOR	1	98.0	98.0	5	2.1	0.095
1146	PN TAMPER	3	92.3	92.9	15	1.9	0.088
1483	PN VIBRATOR	1	105.0	105.0	2	1.9	0.086
1338	SQUEZ/JOLT MOLDER	4	97.0	101.5	5	1.7	0.076
1517	STAND STONE GRIND	3	90.3	92.4	8	1.2	0.053
1194	ROTOBLAST	1	92.0	92.0	8	0.8	0.037
1552	BACK. ONLY CONTR.	3	74.1	78.4	4	0.8	0.036
1119	PN CONE GRINDER	2	95.0	95.0	3	0.7	0.030
1175	WELD/ACETYLENE	1	86.0	86.0	2	0.3	0.014
1542	BACK. ONLY CONTR.	1	69.0	73.3	5	0.3	0.013
1499	WHEELABRATOR	1	90.2	90.2	1	0.2	0.009
1373	SANDMULLER	1	75.0	75.0	1	0.1	0.003

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 4635

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1120	PM WHEEL GRINDER	6	95.6	97.6	3	2.2	0.724
1119	PM CONE GRINDER	2	95.0	95.0	3	0.8	0.276

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1434	FURNACE	1	86.0	86.0	30	6.7	0.303
1103	PNEUMATIC GRINDER	8	95.6	97.2	13	4.1	0.189
1480	PNEUMATIC VIBRATOR	2	101.5	101.5	7	4.0	0.181
1144	PNEUMATIC TAMPER	3	92.3	92.9	15	1.9	0.088
1333	MOLDER	5	95.8	100.3	5	1.7	0.076
1510	ELECTRIC GRINDERS	3	90.3	92.4	8	1.2	0.053
1187	ABRASIVE BLASTING	1	92.0	92.0	8	0.8	0.037
1158	WELD/BURN/GROUING	1	86.0	86.0	2	0.3	0.014
1497	WHEELABRATOR	1	90.2	90.2	1	0.2	0.009
1371	MULLER	1	75.0	75.0	1	0.1	0.003

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 dBA
8-HR PERMISSIBLE LEVEL = 90.0 dBA
EXCHANGE RATE = 5 dBA

SIC CODE = 332

PLANT NO. = 6

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1103	PNEUMATIC GRINDER	8	45.5	97.2	6	3.0	1.000

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL W.C.	LEV. MT. MEAN	PUP. W.C.
27500	PN GRINDER OPER	10	94.6	96.1	95	111
31000	ARC AIR COUGER	2	103.8	106.6	41	50
50500	CUT-OFF WHEEL OPER	3	98.0	96.0	39	39
43300	CORE ROOM WORKER	7	87.8	88.6	28	32
26501	LABORER	6	87.5	89.9	23	33
42200	NO-BAKE CORE OPER	5	87.4	87.4	19	19
28100	STAND STONE GRINDER	2	94.4	94.4	18	18
36800	MELTER/POURER	3	90.7	95.7	18	32
34001	SQUEZ/JOLT MOLDER OP	3	90.5	93.3	17	25
34000	SQUEZ/JOLT MOLDER OP	2	93.1	95.5	16	21
46700	WHELLABRATOR OPER	3	88.0	88.4	12	13
30300	ARC WELDER/A	3	87.0	87.2	10	11
27900	SWING GRINDER OPER	1	92.7	92.7	7	7
26500	LABORER	1	90.3	90.3	5	5
42100	SHELL COKE OPERATOR	1	87.5	86.6	3	4

PERSONNEL NOISE EXPOSURE AND IMPACT

THRESHOLD LEVEL = 90.0 dBA
 8-HR PERMISSIBLE LEVEL = 90.0 dBA
 EXCHANGE RATE = 5 dBA

SIC CODE = 332

PLANT NO. = 7

NO. DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	M.C.	MEAN	M.C.
31000	ARC AIR GOUGER	2	102.3	105.1	5.51	8.16
50500	CUT-OFF WHEEL OPER	3	90.3	90.3	2.40	2.40
27500	PN GRINDER OPER	10	92.5	94.0	1.42	1.75
28100	STAND STONE GRINDER	2	92.3	92.3	1.38	1.38
27900	SWING GRINDER OPER	1	90.3	90.3	1.04	1.04
34000	SQUEZ/JOLT HOLDER OP	2	<90.0	91.5	0.90	1.24
36800	MELTER/POURER	3	<90.0	94.0	0.79	1.73
26500	LABORER	1	<90.0	<90.0	0.66	0.66
34001	SQUEZ/JOLT HOLDER OP	3	<90.0	<90.0	0.35	0.58
26501	LABORER	6	<90.0	<90.0	0.13	0.29
30300	ARC WELDER/A	3	<90.0	<90.0	0.11	0.12
42200	NO-BAKE COKE OPER	5	<90.0	<90.0	0.65	0.65
42100	SHELL COKE OPERATOR	1	<90.0	<90.0	0.00	0.51
43300	CORE ROOM WORKER	7	<90.0	<90.0	0.00	0.41
46700	MHELLABRATOR OPER	3	<90.0	<90.0	0.00	0.41

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. MEAN	WT. PUP. H.C.
275	PN GRINDER OPER	10	94.6	96.1	95	111
310	ARC AIR GOUGER	2	103.8	106.6	41	50
505	CUT-OFF WHEEL OPER	3	98.0	98.0	39	39
340	SQUEZ/JULT HOLDER OP	5	91.5	94.2	34	46
265	LABORER	7	67.9	90.0	29	39
433	CORE ROOM WORKER	7	67.8	86.6	28	32
422	NO-BAKE CORE OPEK	5	87.4	87.4	19	19
281	STAND STONE GRINDER	2	94.4	94.4	18	18
368	MELTER/POURER	3	90.7	92.7	18	32
467	WHELLABRATOR OPEK	3	88.0	88.4	12	13
303	ARC WELDER/A	3	87.0	87.2	10	11
279	SHING GRINDER OPER	1	92.7	92.7	7	7
421	SHELL CUKE OPERATOR	1	87.5	88.6	3	4

TOTAL NUMBER OF PERSONNEL	52
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	52
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.)	52
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	27
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (H.C.)	27
LEVEL WEIGHTED POPULATION (MEAN)	361.0
LEVEL WEIGHTED POPULATION (H.C.)	426.2

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 9835

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
 8-HR PERMISSIBLE LEVEL = 90.0 DBA
 EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL		DAILY NOISE DOSE	
			MEAN	A.C.	MEAN	M.C.
310	ARC AIR GOUGER	2	102.3	105.1	5.51	8.15
505	CUT-OFF WHEEL OPER	3	96.3	98.3	2.40	2.40
275	PN GRINDER OPER	10	92.5	94.0	1.42	1.75
281	STAND STONE GRINDER	2	92.3	92.3	1.38	1.38
274	SWING GRINDER OPER	1	90.3	90.3	1.04	1.04
368	MELTER/PLURER	3	<90.0	94.0	0.79	1.73
340	SQUEZ/JOLT MOLDER OP	5	<90.0	<90.0	0.57	0.84
265	LABORER	7	<90.0	<90.0	0.21	0.34
303	ARC WELDER/A	3	<90.0	<90.0	0.11	0.12
422	NO-BAKE COKE OPER	5	<90.0	<90.0	0.05	0.05
421	SHELL COKE OPERATOR	1	<90.0	<90.0	0.00	0.00
433	CORE ROOM WORKER	7	<90.0	<90.0	0.00	0.41
467	WHELLABRATOR OPER	3	<90.0	<90.0	0.00	0.41

TOTAL NUMBER OF PERSONNEL = 22
 TOTAL NUMBER OVEREXPOSED (MEAN) = 18
 TOTAL NUMBER OVEREXPOSED (A.C.) = 23

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1119	PN CONE GRINDER	5	97.0	99.5	46	7.7	0.147
1438	INDUCT. FURNACE	2	92.0	97.7	38	5.6	0.108
1535	VENTILATION	1	82.0	82.0	95	4.3	0.083
1542	COMPRESSED AIR	5	94.2	96.0	34	3.9	0.075
1120	PN WHEEL GRINDER	1	95.3	95.3	10	3.5	0.068
1338	SQUEZ/JOLT MOLDER	6	99.0	102.6	25	3.4	0.066
1160	ARC AIR GOUGERS	2	106.0	108.8	28	3.2	0.061
1508	CUT-OFF WHEEL	2	100.0	100.0	8	2.9	0.056
1544	BACK. ONLY CONTR.	0	83.9	85.4	33	2.8	0.054
1486	SHAKEOUT	3	92.7	96.2	30	2.7	0.051
1118	PN DISC GRINDER	2	102.5	104.6	36	2.4	0.047
1443	LADLE PRE-HEAT	2	91.0	92.4	50	1.8	0.035
1517	STAND STONE GRIND	1	96.0	96.0	2	1.7	0.033
1552	BACK. ONLY CONTR.	0	73.9	75.4	42	1.2	0.022
1512	SWING GRINDER	2	94.0	94.0	1	0.8	0.016
1442	FURNACE	1	88.0	88.0	20	0.8	0.015
1373	SANDMULLER	1	92.0	92.0	1	0.7	0.014
1451	NO-BAKE CORE	1	96.0	96.0	5	0.7	0.014
1166	WELDING/ARC	3	83.0	86.5	3	0.7	0.014
1492	SHAKEOUT TABLE	4	101.5	104.9	21	0.7	0.013
1334	BACK/MULDERS	1	84.8	84.8	9	0.4	0.008

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9835

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1119	PN CONE GRINDER	5	97.0	99.5	10	5.6	0.310
1120	PN WHEEL GRINDER	1	95.3	95.3	10	4.4	0.245
1506	CUT-OFF WHEEL	2	100.0	100.0	3	3.0	0.167
1160	ARC AIR GOUGERS	2	106.0	106.8	2	2.0	0.111
1517	STAND STONE GRIND	1	96.0	96.0	2	2.0	0.111
1512	SWING GRINDER	2	94.0	94.0	1	1.0	0.056

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	8	98.2	100.6	92	13.6	0.202
1434	FURNACE	5	90.8	94.9	108	8.2	0.128
1158	WELD/BURN/GOUGING	5	92.2	95.5	31	3.9	0.075
1333	MOLDER	7	97.0	100.6	34	3.8	0.074
1484	SHAKEOUT/DUMPOUT	7	97.7	101.2	51	3.3	0.064
1505	CUT-OFF WHEEL	2	100.0	100.0	8	2.9	0.056
1510	ELECTRIC GRINDERS	3	94.7	94.7	3	2.5	0.049
1371	MULLER	1	92.0	92.0	1	0.7	0.014
1448	CORE OVEN	2	94.5	94.5	5	0.7	0.014

ENVIRONMENTAL PROTECTION AGENCY

DBA JOB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 5 DBA

SIC CODE = 332

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUM. P.I.
1103	PNEUMATIC GRINDER	6	96.2	100.6	20	10.0	0.556
1505	CUT-OFF WHEEL	2	100.0	100.0	3	3.0	0.157
1510	ELECTRIC GRINDERS	3	94.7	94.7	3	3.0	0.157
1158	WELD/BURN/GUUGING	5	92.2	95.5	2	2.0	0.111