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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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APPENDIX A

THEORETICAL BASIS FOR THE ERROR ESTIMATES PRESENTED IN CHAPTER 6

A.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 n 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.

$$x = y/m$$

$$x_j = y_j/m_j ; j = 1, 2, 3, \dots, p \quad (A.1)$$

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

$$x_n = y_n/m_n$$

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.

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

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_i = number of personnel in the i th plant in a sample of n plants within 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_i = number of personnel in the i th plant in a sample of n 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 (FOP) exposed to $L_{eq}(8) > 75$ dBA (or $L_{eq}(8) > 90$ dBA) are given by

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

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

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

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].

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

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

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

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

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

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

$x_n = y_n/m_n$

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

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

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]

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

where y_n = DND value computed for 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_i 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

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

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]

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

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 OSHA 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 <u>(4-digit integer)</u>	Columns for % of Time Spent <u>(decimal number)</u>
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 <u>(4-digit integer)</u>	Columns for % of Time Spent <u>(decimal number)</u>
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.

Report 4535

Bolt Beranek and Newman Inc.

B.4 Program Listing, April 1980

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

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MAIN

DATE = 81141

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```
IMPLICIT INTEGER (I)
REAL L8I,L8INC,LMPN,LMPNL,LMPJ,LMPHC,J,LMPN,LMPNCN,JCUDE3*8,JCUDE8
1,MC*8
COMMON/COSHA/ SHH(10),SLEYHC(10),
1HS(10),NEXPNC, JCUD(5),LMPJ(500),LMPN(500),NEXP,LADU
7,KUATA(5)
COMMON/EMC/MCODE(5),MNAME(5),IUDATE
COMMON/IDX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
1JTC1(50),JTC2(50),AINC,OY,ANTH,EOLV,NEN,NACC
COMMON/LMIX/LMAX(150),LCUD1(150,10)
COMMON/EQ1/ALEQ2(500),STDAM(500),KNAME1(500,5),JARR(500),JSEW(500)
COMMON/EQ2/ALEQ3(500),STDAM(500),KNAME2(500,5),JARR3(500),
1JSEQ3(500)
COMMON/OD/MAC1(500),MAC2(50),MAC3(50),JCODE2(50),NSC(50)
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/ITSDE/ ITST(50),UPT(30),NTST(50)
COMMON/NHC/LHP(500),LMPHC(500),NT90,NH90,NT75,NH75,NTTU,LSTO(500),
1NSTO(500),L8I(500),L8INC(500),SUM,SUMHC,LNT90,LNT75,LNK90,LNH75,
2ALB2(500),ALB2HC(500),ALVP(500),ALVPHC(500),NUMP(500),JBC(500),
3NSTO(500),NSTO(500),NJ(500),JE,URD(500),JBDES2(50,5),RSUM,RSUMHC
COMMON/ISICP/ICS(20),IPS(20,50),IND(20)
COMMON/IDS1/IDS(500)
COMMON/NM/NNAME(9),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
COMMON/MCOM/MOM(10000)
COMMON/ISORD/KKP(600),KSIC3(600)
COMMON/ISORD/ URD2(600),NPEDP(600),MOLT1(600)
DIMENSION MOLT(50), MTYPE(5),MSIZE(5),
1KNAME(5),KTYPE(5),KSIZE(5), JMAC(5),JBDES1(600,5),
2JCUD(500),JML(300,10),HJ1(300,10),KM1(300),KJD(600),
3LDATA(5),
4JDEC(5),KNS(50), MCK1(50),MCR2(50),MATT(50),ALQD(50),
5STD(50),ALQ1(50),STD1(50),KMAC(5), KU1(50),KU2(50),
6JSTO(600),JCODE3(600),BUM(10,30,5)
DATA KMAC/4H    ,4H    ,4H    ,4H    ,
DATA JMAC/4HNOT ,4HIN L,4HIST ,4HOF E,4HQIP/
DATA JDEC/4HNOT ,4HIN L,4HIST ,4HOF J,4HOB5 /
DATA LDATA/4HBACK,4H. UN,4HLY L,4HJNTR,4H. /
DO 2 J=1,5
  KDATA(J)=LDATA(J)
2 CONTINUE
READ(5,501) (NAME(J),J=1,9),JBNJNU
REWIND 11
REWIND 12
REWIND 21
REWIND 31
REWIND 40
REWIND 50
LC=1
```

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```
NLN=40
DO 5 I=1,10000
NOM(1)=0
5 CONTINUE
J3=0
OPTST=0
NTP= 11
LC=0
NMB=0
MFNC=11
MFHC=21
NBT=0
NPLT=1
READ(5,5001) (OPT(I),I=1,30)
WRITE(6,6061)
DO 6 I=1,30
IA=OPT(I)+1
WRITE(6,6062) I,OPT(I)
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, OR 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.100)MULT(NPLT)=10
IF(NSIC(NPLT).LT.100)MULT(NPLT)=100
WRITE(6,6005)NSIC(NPLT),NPL(NPLT),ND1(NPLT),ND2(NPLT),ND3(NPLT),
IND4(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) IDUM,JDUM1,ND1(1),ND2(1),ND3(1),ND4(1),NPPP(1)
WRITE(6,6004) ND1(1),ND2(1),ND3(1),ND4(1),MPPP(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(UPT(J).NE.0.AND.UPT(J).NE.1)GO TO 50
40 CONTINUE
IF(UPT(28).GT.3)GO TO 51
IF(UPT(8).NE.4.AND.UPT(8).NE.5.AND.UPT(8).NE.6)GO TO 52
IF(UPT(25).NE.0.AND.UPT(25).NE.1.AND.UPT(25).NE.2.AND.UPT(25).NE.3
1)GO TO 54
IF(UPT(21).NE.0.AND.UPT(21).NE.1.AND.UPT(21).NE.2)GO TO 56
GO TO 60
50 WRITE(6,6001) J,UPT(J)
STOP 1
51 WRITE(6,6048) UPT(28)
STOP 1
52 WRITE(6,6045) UPT(8)
STOP 1
54 WRITE(6,6046) UPT(25)
STOP 1
56 WRITE(6,6047) UPT(21)
STOP 1
60 IF(UPT(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
```

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```
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,(JDESI(J),J=1,2)
IF(JBC.EQ.JCD)GO TO 340
GO TO 310
320 DO 330 J=1,5
JOES(J)=JOEC(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
KN(JT)=JNP
KJD(JT)=JDATE
DO 360 J=1,5
JBDES1(JT,J)=JOES(J)
360 CONTINUE
DO 370 J=1,10
JM1(JT,J)=M(JJ)
MJ1(JT,J)=H(JJ)
370 CONTINUE
REWIND 11
GO TO 300
410 CALL JOBSRT(JST0,JT)
415 DO 420 INB=1,JT
  WRITE(NFNC) JCODE1(JST0(INB)),(JBDES1(JST0(INB),J),J=1,5),
  1KN(JST0(INB)),(JM1(JST0(INB),JJ),MJ1(JST0(INB),JJ),JJ=1,10),
  2KJO(JST0(INB),MOLT1(JST0(INB)))
420 CONTINUE
JC=0
END FILE NFNC
REWIND NFNC
```

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```
IF(NBT.NE.0)GO TO 510
NBT=1
NFWC=40
CALL JUBST1(JST0,JT,JCOUE1)
GO TO 415
510 CONTINUE
C   WE HAVE NOW READ  FRUM 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, LUE AND WORKER CATEGORY DATA AS REQUIRED
C   BY THE OPTION CARD
C
IF(DOPT1(9).NE.0)GO TO 580
545 CONTINUE
WRITE(6,6015) (NAME(J),J=1,9),JBNJ40
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(UPT(10).NE.0)GO TO 630
590 CONTINUE
```

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      WRITE(6,6015) (NAME(J),J=1,9),JBNJNO
      WRITE(6,6018)
      IT=1
 600 READ(12,END=620) MB,(MNAME(J),J=1,5),(MTYPE(K),K=1,5),I
     MSIZE(L),L=1,51
      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(JST0(IT))/100000/MOLT1(JST0(IT))
      KPLT=JCODE1(JST0(IT))/1000-100*(JCODE1(JST0(IT))/100000)
      KJUB=JCODE1(JST0(IT))-1000*(JCODE1(JST0(IT))/1000)
      JDATE=KJD(JST0(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),JBNJNO
      WRITE(6,6020)
      IB=1
      WRITE(6,6022) KSIC,KPLT,JDATE
      WRITE(6,6023)
 690 WRITE(6,6024) KJOB,(JBDES1(JST0(IT),J),J=1,5),KN(JST0(IT)),
     1(JM1(JST0(IT),JJ),HJ1(JST0(IT),JJ),JJ=1,3)
      IB=IB+1
      KX=JM1(JST0(IT),4)
      IF(KX.EQ.0)GO TO 695
      IB=IB+1
      WRITE(6,6051)(JM1(JST0(IT),JJ),HJ1(JST0(IT),JJ),JJ=4,6)
      KY=JM1(JST0(IT),7)
      IF(KY.EQ.0)GO TO 695
      IB=IB+1
      WRITE(6,6051)(JM1(JST0(IT),JJ),HJ1(JST0(IT),JJ),JJ=7,9)
      KZ=JM1(JST0(IT),10)
      IF(KZ.EQ.0)GO TO 695
      IB=IB+1
      WRITE(6,6051) JM1(JST0(IT),10),HJ1(JST0(IT),10)

```

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```
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 FRUM 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),
  1(MSIZE(L),L=1,5)
  IF(MB .EQ.MJC)GO TO 790
  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)GU 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)*1000000.0
```

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```
KKP(JM)=MJC
KSIC4(JM)=KSIC
MOLTI(JM)=MLTI
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(JST0,JM,KKP)
WRITE(6,6052)
825 DO 830 INB=1,JM
LD=JCHK(JST0(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
828 CONTINUE
829 CONTINUE
WRITE(NFMC) JCDE3(JST0(INB)),(JBDES1(JST0(INB),J),J=1,5),
ALEQ1(JST0(INB)),(LCODE(J),DEC(J),J=1,3),KJD(JST0(INB))
1,MOLTI(JST0(INB))
830 MC=0
END FILE NFMC
REWIND NFMC
IF(NMB.EQ.0)GO TO 930
NMB=1
NFMC=40
CALL JOBST3(JST0,JM,JCDE3)
GO TO 825
930 CONTINUE
C   HE 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 HE CALCULATE ANY NOISE REDUCTION      DATA AND STORE IT ON
C   DISK AND THEN WRITE ALL OUR MACHINE DATA ON TAPE 9
C   HE 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                 KDI(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 39
C   IF(OPT(30).EQ.0)GO TO 39
WRITE(6,6502)
OY=0
38 CONTINUE
OY=OY+1
READ(5,5502) LMAX(OY),ILCODE1(OY,J),J=1,10)
IF(ILMAX(OY).EQ.0)GO TO 941
LJ=LMAX(OY)
WRITE(6,6503) ILCODE1(OY,J),J=1,LJ
6503 FORMAT(12X,10(I4,2X))
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=9908) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1,J=1,3),IDATE
1,MAT1
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
IFI(MC00.GE.MCR1(LA).AND.MC00.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)
1,1DATE,MLT1
GO TO 995
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),
1,J=1,3),1DATE
1,MLT1
WRITE(9)      MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1,J=1,3),1DATE
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),
1,1DATE
```

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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(LOPT(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=KSIC4(JST0(IT))
KPLT=IDINT(JCODE3(JST0(IT))/10000.0)-KSIC*100
KSIC=KSIC/MOLT1(JST0(IT))
JDATE=KJD(JST0(IT))+1900
IF(JCHK(JST0(IT)).EQ.0) GO TO 1185
JJB=JJB+1
JTC(JJB)=JST0(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 1182
IF(JCHK(JST0(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
HRITE(6,6015) (NAME(j),j=1,9),JBNJNO
IB=1
HRITE(6,6626)
HRITE(6,6022) KSIC1,KPLT1,JDATE1
HRITE(6,6628)
K=JJ
```

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```
00 1189 JJ=K,JJB
1B=IB+1
JH=JTC(JJ)
KJB=JCHK(JH)
HRITE(6,6629) KKP(JH),(JBDES1(JH,J),J=1,5),
ALEQ1(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.JM)GO TO 1200
1187 CONTINUE
HRITE(6,6015) (NAME(J),J=1,9),JBNJNO
HRITE(6,6026)
IB=1
HRITE(6,6022) KSIC,KPLT,JDATE
HRITE(6,6028)
IF(1CT.EQ.0)GO TO 1190
ICT=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
IDST=0
GO TO 1180
1191 CONTINUE
KMCC=KKP(JSTO(1T))
HRITE(6,6029) KMCC,(JBDES1(JSTO(1T),J),J=1,5),ALEQ1(JSTO(1T))
IB=IB+1
IF(1B.LT.40)GO TO 1180
ICT=1
GO TO 1187
1200 CONTINUE
C   WE HAVE NOW WRITTEN OUT EQUIPMENT DATA
C
OPTST=0
NTP=11
1245 NPLTI=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
```

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```
NTST1=0
NTST2=0
LADD=1
NDT1=0
NDT2=0
LKST=0
ALEQ=0
KTST2=1
KTST1=500000
DO 2000 I=1,NPLT1
ANTH=ANTH1
EQLY=EOLV1
NEN=NEN1
NTRIC=0
1252 CONTINUE
DO 1255 IJ=1,100
JCHK(IJ)=0
JTC1(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(IUP(7).NE.0)GO TO 1265
KTST1=NTST(I)
KTST2=ITST(I)
1265 READ(NTP,END=1280) MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
IJ=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
MCODE(1)=IDINT(MC/100000000.0)*MLT1
MCODE(2)=IDINT(MC/10000000.0)*MLT1
MCODE(3)=IDINT(MC/1000000.0)
MCODE(4)=IDINT(MC/10000.0)-MCODE(3)*100
MCODE(5)=IDINT(MC-10000.0*DFLOAT(IDINT(MC/10000.0))+0.1)
MCODE=10INT(MC/10000000.0)*100
MCODE(3)=10INT(MC/1000000.0)*MLT1
IF(OPT(7).EQ.0)GO TO 1275
GO TO 1330
```

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```
1275 CONTINUE
  IF(MCODE(4).EQ.0.AND.MCODEU .EQ.MKSIC)GO TO 1320
  IF(DPT(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
  ND1(I)=0
  NDT1=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)LA DD=0
  IF(KCOD.EQ.0)GO TO 1335
  DO 1332 J=1,3
    DC01(LADD,J)=DEC(J)
    LC01(LADD,J)=LCODE(J)
    IF(LCODE(J).NE.0)KADD=KADD+1
1332 CONTINUE
1335 CONTINUE
  CALL ZC(JADD,LKTST,NDT1,KBT,NTST1,NTST2,ALE Q,NTP,NDT2,KTST1,KTST2,
  LA DD,KCOD,MKSIC,MSOP,NTST3,KADD,NPLT)
  NOP=0
  REHIND NTP
  JBD=JADD
  DO 1336 JT=1,JBD
    IF(JCHK(JT).EQ.0)GO TO 1336
    KADD=JTC(JCHK(JT))
    DO 1337 JU=1,KADD
```

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```
KF=NOM1LCD1(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(LCD1(JCHK(JT),JU))+ALEQ2(JT)
STDAM(KF)=STDAM(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 HE CALL ROUTINE TO CALCULATE PERSONNEL AND EQUIPMENT IMPACTS
JA=0
CALL HCl(KKI,NPLTI,JMAX,JA,OPTST,I2,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
ANTM=ANTH2
EQLV=EQLV2
NEM=NEM2
IF(OPT(28).EQ.2.AND.NTRIC.LT.2)GO TO 1400
IF(OPT(28).EQ.3.AND.NTRIC.EQ.1)GO TO 1400
ANTM=ANTH3
EQLV=EQLV3
NEM=NEM3
IF(OPT(28).EQ.3.AND.NTRIC.LT.3)GO TO 1400
1410 CONTINUE
DO 1500 IJ=1,10000
NOM1(IJ)=0
1500 CONTINUE
JADD=1
LADD=1
REMINO 11
GO TO 2000
1510 CONTINUE
OPTST=1
```

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```
NTP=12
IF(UPT(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(UPT(20).NE.0)GO TO 1580
IF(OPT(21).EQ.2)GO TO 1560
DO 1550 IJ=1,JA
  WRITE(50) L8I(LSTO(IJ)),L8IHC(LSTO(IJ)),LHP(LSTU(IJ)),LHPHC(LSTU
  I(IJ)),LSTO(IJ)
1550 CONTINUE
IF(OPT(21).EQ.1)GO TO 1581
1560 DO 1570 IJ=1,JA
  WRITE(50) L8I(KSTO(IJ)),L8IHC(KSTO(IJ)),LHP(KSTO(IJ)),LHPHC(KSTU
  I(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)),AL82HC(MSTU(IJ)),ALVP(MSTU(IJ)),
  1ALVPWC(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)),AL82HC(MSTU(IJ)),ALVP(MSTU(IJ)),
  1ALVPWC(MSTO(IJ)),MSTO(IJ)
1575 CONTINUE
1580 CONTINUE
END FILE 50
REHIND 50
1583 CONTINUE
LADD=1
JADD=1
REMIND 11
DO 1586 IJ=1,10000
NOM(IJ)=0
1586 CONTINUE
IF(UPT(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
RSUMHC=SUMHC
LNT90=NT90
LNH90=NH90
LNT75=NT75
```

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```
LNH75=NN75
GO TO 1262
1590 CONTINUE
REWIND NTP
CALL WRITE3(I2,KKI,NTOT,NPLT,JA,JMAX,LC,NTRIC)
1800 CONTINUE
DO 1810 IJ=1,10000
NOM4IJJ=0
1810 CONTINUE
OPTST=0
LAUD=1
JAUD=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(14,1X,I2,1X,12,1X,I2,1X,I2,1X,12,1X,16,1X,7A4)
5003 FORMAT(15,1X,5A4)
5004 FORMAT(14,1X,15A4)
5005 FORMAT(14,1X,I2,1X,I2)
5006 FORMAT(13,16X,I4,5(I4,F6.1))
5007 FORMAT(23X,5(I4,F6.1))
5008 FORMAT(16,20X,F5.1,2X,3(I4,1X,F4.1,1X))
5009 FORMAT(14,2X,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(1X,I4))
6001 FORMAT(/12X, 7HQPTION +1,23H MUST EQUAL ONE OR ZERO/12X,
128HAT THIS TIME IT IS EQUAL TO ,I5/)
6002 FORMAT(1H1//12X,54HLIST OF PLANTS AND/OR SIC CODES REQUESTED F
1OR 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,
310MFOR EQUIP.,2X,10MFOR EQUIP.,2X,10MFOR PERS. ,2X,8MFOR PERS,2X,
48MDF PERS.1
6003 FORMAT(12X,64HTHE TOTAL NUMBER OF PLANTS AND/OR SIC CODES TO BE C
1UNSIDERED 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//1
6005 FORMAT(14X,I4,8X,I2,9X,I2,10X,I2,10X,I2,9X,I2,6X,I6,3X,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 THAN 300 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 HUURLY DATA SO STOP)
6015 FORMAT(1H1 ///12X,9A4,I7X,12HBBN JOB NO. ,10//
6016 FORMAT(41X,12HLIST OF JOBS//12X,3HJOB,9X,15HJOB DESCRIPTION/12X,
14HCODE/)
6017 FORMAT(12X,I5,8X,5A4)
6018 FORMAT(38X,17HLIST OF EQUIPMENT//12X,6HEQUIP.,4X,12HGENERIC NAME,
1 9X,4HTY E,17X14MSIZE#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,I4,17X,10HPLANT NO: ,12,17X,6HDATE: ,
14//)
6023 FORMAT(12X,4H JOB,3X,20HJOB DESCRIPTION ,2X, 5HNO OF ,4X,
131HTIME SPENT USING EQUIPMENT CODE/12X,4HCODE,25X,5HPERST.,2X,
24HCODE,2X,4HTIME,2X,4HCODE,2X,4HTIME,2X,4HCODE,2X,4HTIME/)
6024 FORMAT(12X,I4,3X,5A4,2X,I5,2X,I4,1X,F5.1,2X,I4,1X,F5.1,2X,I4,1X,
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,26HNO RELAX DATE RESTRICTION)
6031 FORMAT(//12X,33HNO EQUIPMENT DATA FOR PLANT CODE ,12,1X,
118HIN SPECIFIED DATES/12X,26HNO RELAX DATE RESTRICTION)
6032 FORMAT(//12X,52HTHERE IS NO EQUIPMENT DATA AT ALL FOR THE ABOVE COD

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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
IT 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,5X,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,12HENQ OF RANGE,5X,9HREDUCTION/)
6072 FORMAT(20X,I4,16X,I4,13X,I2)
6115 FORMAT(1H1////12X,9A4)
6501 FORMAT(22X,17MANALYSIS CRITERIA//12X,18MTHRESHOLD LEVEL = ,
1F5.1,4H DBA/12X,38H8-HOUR EQUIVALENT PERMISSIBLE LEVEL = ,F5.1,
24M DBA/12X,50HCHANGE RATE (DB PER HALVING OF EXPOSURE TIME) = ,
311 ,4H DBA)
6502 FORMAT(1H1////12X,59MLIST OF EQUIPMENT CODES WHICH ARE TO BE CON
SIDERED TOGETHER/12X,42MIN 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,35MLIST OF GENERALIZED EQUIPMENT CODES//
1 13X,4HCUDE,7X,5HBEGIN,5X,4H END,5X,19HGENERAL D
2ESCRIPTION/)
6577 FORMAT(13X,I4,7X,I4,6X,I4,5X,5A4)
6626 FORMAT(36X,21HINPUT BACKGROUND DATA//)
6627 FORMAT(34X,24HDATA BANK EQUIPMENT DATA//)
6628 FORMAT(12X,5HBACK.,1X,12HGENERAL NAME,8X,5H LEO , 2X,36HEQUIPMENT
1CONTRIBUTION 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

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ZC

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

C THIS SUBROUTINE CALCULATES AVERAGE LEQS FOR EQUIPMENT DATA

C
SUM=ALEQ
I=1
STD=ALEQ**2
LKTST=0
MCODE=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),
1J=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(OPT(7).EQ.1.AND.NTST1.EQ.0.AND.MCODE.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.ANU.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 TO 40
IF(MCO.EQ.MCODE(5))GO TO 10
17 ALEQ2(JADD)=SUM/DFLOAT(1)
```

```
JARK1(JADD)=MC0
JSEQ1(JADD)=1
NOM(MC0)=JADD
IF(KCUD.EQ.0) GO TO 19
DO 181 I J=1,KADD
DCD1(LADD,I J)=DCD1(LADD,I J)/FLOAT(I)
181 CONTINUE
JCHK1(JADD)=LADD
JTC1(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
MC0=MCODE(5)
KCUD=LCODE(1)
SUM=AEQ
STD=AEQ**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 23
STDAM(JADD)=SQRT((STD*FLOAT(I)-SUM*SUM)/FLOAT(I*(I-1)))
GO TO 30
20 STDAM(JADD)=0.0
30 CONTINUE
```

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```
DO 35 J=1,5
      KNAME1(JADD,J)=MNAME2(J)
35  CONTINUE
      IF(LKTST.EQ.1.OR.KBT.EQ.1)GO TO 70
24  IF(MOT1.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=NST1(J)
      KTST2=ITST(J)
      IF(KTST1.EQ.MCODE(KTST2))GO TO 18
42  CONTINUE
      GO TO 43
43  CONTINUE
      IF(KTST1.EQ.MCODE(KTST2))GO TO 18
44  CONTINUE
      IF(MCODE(4).EQ.0.AND.MCODED .EQ.MKSIC)GO TO 18
23  CONTINUE
      READ(NTP,END=70)MC,(MNAME(J),J=1,5),ALEQ,(LCODE(J),DEC(J),
1,J=1,3),IDATE
1,MLT1
      MCODED=IDINT(MC/100000000.0)*100
      MCODE(1)=IDINT(MC/100000000.0)*MLT1
      MCODE(2)=IDINT(MC/100000000.0)*MLT1
      MCODE(3)=IDINT(MC/1000000.0)
      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
      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
```

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```
M8D=1
KBD=MAX0(KADD,M8D)
DO 85 J=1,3
IF(LCODE(J),EQ.0)GOTO 10
DO 87 JK=1,KBD
IF(LCODE(J),EQ.LCD1(LADD,JK)) GU 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
GU TO 17
70 CONTINUE
REWIND NTP
6601 FORMAT(//12X,37HTUQ MANY DIFFERENT ITEMS OF EQUIPMENT/12X,
139HCHANGE ARRAY SIZE AND SUME PROGRAM CODE/)
6603 FORMAT(//12X,42HNUMBER OF CONTRIBUTURS TO BACKGROUND CODE ,14,
11X,10HEXCEEDS 15/12X,32HCHANGE SOME CODE AND ARRAY SIZES/)
6602 FORMAT(//12X,30HTUQ MANY DIFFERENT BACKGRUUNDS/12X,
132HCHANGE SOME CODE AND ARKAY SIZES/)
RETURN
END
```

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MC1

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```
SUBROUTINE MC1(I,NPLTI,JMAX,JA,OPTST,IK,NPLT,NTOT,JBL,NTP,MKSIC,LC
1A,NTRIC)
IMPLICIT INTEGER (D)
REAL L8I,L8IHC,LHP,LHPHC,LHPJ,LHPHCJ,LHPN,LHPHCH,LIJ,LIJHC,KCC=0
1,JCODE2=8
COMMON/COSHA/ SWH(10),SLEVHC(10),
1HS(10),NEXPHC, JCODE(5),LWPJ(500),LWPN(500),NEXP,LADU
7,KDATA(5)
COMMON/LMIX/LMAX(150),LC001(150,10)
COMMON/IDX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCHK(600),
1JTC(150),JTC2(150),AINC,UY,ANTH,EQLV,NEM,NACC
COMMON/EQ1/AEQ2(500),STDAM(500),KNAME1(500,5),JARR1(500),JSEQ1(500)
COMMON/EQ2/AEQ3(500),STDAM3(500),KNAME2(500,5),JARR3(500),JSEQ3(500
10)
COMMON/ITSDE/ITST(50),OPT(30),NTST(50)
COMMON/NM/NAME(9),JBNU,SNAMES(50,7),NPL(50),NSIC(50)
COMMON/DD/MAC1(500),MAC2(50),MAC3(50),JCODE2(50),NSC(50)
COMMON/NCOM/NOM(10000)
COMMON/NHC/LHP(500),LHPHC(500),NT90,NH90,NT75,NH75,NTTD,LSTO(500),
1KSTO(500),L8I(500),L8IHC(500),SUM,SUMHC,LNT90,LNT75,LNH90,LNH75,
2AL82(500),AL82HC(500),ALVP(500),ALVPHC(500),NUMP(500),JUBC(500),
3NSTO(500),NSTO(500),NJ(500),JE,URD(500),J80E52(50,5),RSUM,RSUMHC
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/EMC/MCODE(5),MNAME(5),IDATE
COMMON/ISICP/ILS(20),IPS(20,50),IND(20)
COMMON/ISORD/ DRD2(600),NPEOP(600),MLT1(600)
```

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

```
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),JJ=1,10),
1,JDAT
1,MLT1
IB=IB+1
NPEOP(IB)=JC
IF(OPT(26).EQ.0)GO TO 27
DO 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),JJ=1,10),JDAT
1,MLT1
```

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HCI

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```
      GO TO 10
 20 END FILE 40
 REMIND 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),
 1,JDATE
 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
JCODE(1)=JC/10000000*MLT1
JCODE(2)=JC/1000000*MLT1
JCODE(3)=JC/100000
JCODE(4)=JC/1000-JCODE(3)*100
JCODE(5)=JC-1000*(JC/1000)
JCODE(3)=JC/100000*MLT1
DO 70 JI=1,NPLTI
IF(NTST(JI).NE.JCODE(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(IB)=JC
MLT1(IB)=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 JUBST1(ORD2,IB,NPEUP)
CALL NPSC(IR,NTOT,IB)
CALL SORTHC(NPLT,NTOT,1,IR,OPTST)
85 CONTINUE
IF(NTRIC.NE.0.AND.OPT(22).EQ.0)GO TO 1500
C   NUM WRITE OUT EQUIPMENT AVERAGED DATA
C
LX=0
JMZ=JBL-LCA
CALL JUBST2(ORD2,JMZ,ALG21)
LCD=0
```

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HCI

JDATE = 81142

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```
LD=JMAX-LCA+1
IF(UPT(24).EQ.0)GU TO 1400
DU 760 IH=LD,JMAX
JSEQ(IH)=0
JAKR(IH)=0
STUAM(IH)=0.0
ALEQ2(IH)=0.0
760 CONTINUE
DU 710 IZ=1,LCA
J6=0
MSK=NSIC(I)/JCODE2(LZ)
IF(NSC(IZ).EQ.MSK)GU 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)GU TO 705
IF(JARR(LZ).LE.MAC3(IZ).AND.JARR(LZ).GE.MAC2(IZ))GU TO 700
IF(JARR(LZ).EQ.MAC1(IZ))GU TO 700
GU TO 705
700 CONTINUE
JSEQ(JIZ)=JSEQ(JIZ)+JSEW(LZ)
ALEQ2(JIZ)=ALEQ2(JIZ)+ALEQ2(LZ)+JSEW(LZ)
STUAM(JIZ)=STDAM(JIZ)+STUAM(LZ)+2*(JSEW(LZ)-1)
J6=J6+1
705 CONTINUE
DU 706 J=1,5
KHAM1(JIZ,J)=JBDESCL IZ,J
706 CONTINUE
JAKR(JIZ)=MAC1(IZ)
IF(JSEQ(JIZ).EQ.0)GU TO 710
ALEQ2(JIZ)=ALEQ2(JIZ)/JSEQ(JIZ)
IF(NOM(MAC1(IZ)).NE.0)ALEQ2(NUM(MAC1(IZ)))=0.0
NUM(MAC1(IZ))=JIZ
IF(J6.EQ.JSEQ(JIZ).OK,STDAM(JIZ),EJ.0)GU TO 710
STUAM(JIZ)=SORT(STDAM(JIZ)/(JSEW(JIZ)-J6))
710 CONTINUE
LCA=LCA-LCD
JMAX=JMAX-LCD
JBL=JBL-LCD
JMZ=JBL-LCA
1400 NBT=0
IF(UPT(15).EQ.1)GU TO 1490
1410 CONTINUE
```

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WCL

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```
NLN=40
IF(UUTST.EQ.1)GU 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)GU TO 1420
NLN=NLN-2
WRITE(6,6120)
1420 CALL WRITE1(IR, 1,N01,N02,NTOT,NPLT,NLN)
WRITE(6,6103)
C NOW WRITE OUT LIST
NZT=0
DO 1450 IL=1,45
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JMZ1)GU TO 1490
ORD2(NBT)=ORD2(NBT)+LX
IF(ALEQ2(ORD2(NBT)).EQ.0.0.UR.JARR(ORD2(NBT)).EQ.1000)GU TO 1426
WRITE(6,6104) JARR(ORD2(NBT)),(KNAME(ORD2(NBT),J),J=1,5),JSEQ(ORD2
1(NBT)),ALEQ2(ORD2(NBT)),STUAM(ORD2(NBT))
GO TO 1427
1426 CONTINUE
NZT=NZT-1
1427 CONTINUE
IF(UPTST.EQ.1).UR.OPT(22).EQ.0.0.UR.OPT(17).EQ.1)GU TO 1425
WRITE(50) ALEQ2(ORD2(NBT)),STUAM(ORD2(NBT)),ORD2(NBT)
1425 CONTINUE
IF(NZT.GE.NLN)GU TO 1410
1450 CONTINUE
1490 CONTINUE
IF(UPT124).EQ.0)GU TO 1500
IF(UUTST.EQ.1)GU TO 1500
UTST=1
DO 1510 IH=1,LCA
ALEU3(IH)=ALEQ2(IH+JMZ)
STUM3(IH)=STUAM(IH+JMZ)
IF(ALEQ3(IH).EQ.0.)ALEU3(IH)=FLUAT(IH)/L.E+9
1510 CONTINUE
LX=JMZ+LCD
JMZ=LCA
CALL JOYST2(ORD2,LCA,ALEQ3)
IF(UPT115).EQ.1)GU TO 1500
GO TO 1400
1500 CONTINUE
IF(UPT125).EQ.0.0.UR.UPT125).EQ.1)GU TO 40
WRITE(6,6001) UPT125)
```

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```
      STOP 0
  90 CONTINUE
    IF(IUPT(28).EQ.0)GO TO 80
    IF(IUPT(28).EQ.2.AND.NTRIC.EQ.0)GO TO 80
    IF(IUPT(28).EQ.3.AND.NTRIC.EQ.0)GO TU 80
    CALL DSHA(LCA,NTP,JBL,NPLT,I,NPLT1,MKSIC,JMAX,JA,OPTST,IR,NTOT)
    RETURN
  88 CONTINUE
    JA=0
    SUM=0.0
    SUMHC=0.0
    NT70=0
    NT90=0
    NPUP=NPPP(I)
    NTTU=0
    NH70=0
    NH90=0
    JM2=JMAX-LCA
  100 READ(31,END=240) KCC,(JUESI(J),J=1,5),(M(JJ),H(JJ),HS(JJ),JJ=1,10)
    L,NPRS
    IF(NPRS.EQ.0)GU TO 100
    CTOT=0.0
    IF(M(1).EQ.0)GU TU 100
    IK=1
    SLEV=0.0
    DO 130 IJ=1,10
    IF(M(IJ).EQ.0)GU TO 130
    SHM(IJ)=H(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)GU TO 130
    SLEV=ALEQ2(KJ)
    IK=IJ
  130 CONTINUE
C   NUH RENORMALISE HOOKS
  135 CONTINUE
    DU 160 IJ=1,10
    IF(M(IJ).EQ.0)GU TO 160
    KJ=NOM(M(IJ))
    IF(IJ.EQ.IK)GO TO 140
    GO TO 150
  140 CONTINUE
    SLEVHC(IJ)=ALEQ2(KJ)+STUDM(KJ)
    SHM(IJ)=H(IJ)+HS(IJ)
```

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```
150 CTOT=CTOT+SHH(IJ)
160 CONTINUE
165 CONTINUE
DU 170 IJ=1,10
IF(M(IJ).EQ.0)GO TO 175
SHH(IJ)=SHH(IJ)/CTOT
170 CONTINUE
175 CONTINUE
JA=JA+1
L8I(JA)=1.E-6
L8IHC(JA)=0.0
DU 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.KDATA1(3))GO TO 230
IF(M(IJ).EQ.1000)GO TO 230
215 CONTINUE
LIJHC=      SHH(IJ)*10.0***(SLEVHC(IJ)/10.0)*OPT(8)/4.0
LIJ=      M(IJ)*10.0***(ALEQ2(KJ)/10.0)*OPT(8)/4.0
L8I(JA)=L8I(JA)+LIJ
L8IHC(JA)=L8IHC(JA)+LIJHC
230 CONTINUE
231 CONTINUE
IF(L8I(JA).LT.0.0001)GO TO 233
L8IHC(JA)=10.0*ALUG10(L8IHC(JA))
L8I(JA)=10.0*ALUG10(L8I(JA))
IF(L8I(JA).GE.75.0)GO TO 232
233 CONTINUE
LHP(JA)=L8I(JA)/1000000.0
GO TO 234
232 MH=0.025*(L8I(JA)-75.0)**2
LHP(JA)=NPRS*MH
SUM=SUM+LHP(JA)
NT75=NT75+NPRS
234 IF(L8IHC(JA).GE.75.0)GO TO 236
L8IHC(JA)=L8IHC(JA)/1000000.0
GO TO 237
236 MHHC=0.025*(L8IHC(JA)-75.0)**2
L8IHC(JA)=NPRS*MHHC
SUMHC=SUMHC+L8IHC(JA)
NH75=NH75+NPRS
237 DO 238 J=1,5
KNAME2(JA,J)=JUES(J)
238 CONTINUE
JSEQ3(JA)=NPRS
NTTU=NTTU+NPRS
JAXR3(JA)=IDINT(KCL-100000.0*DLOAD/(IDINT(KCC/100000.0)+0.1))
```

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```
IF(L8I(JA).GT.90.0)NT90=NT90+NPRS
IF(L8IHC(JA).GT.90.0)NH90=NH90+NPRS
GO TO 100
240 CONTINUE
IF(UPT(25).NE.1)GO TO 248
DO 245 IJ=1,JA
LWP(IJ)=LWP(IJ)*NPUP/NTTU
LWPNC(IJ)=LWPNC(IJ)*NPUP/NTTU
JSEQ3(IJ)=JSEQ3(IJ)*(FLUAT(NPOP)/FLOAT(NTTU)+1.E-8)
245 CONTINUE
248 CONTINUE
NTTU=NTTU
IF(UPT(25).NE.1)GO TO 250
SUM=SUM*NPOP/FLUAT(NTTU)
SUMHC=SUMHC*NPUP/FLOAT(NTTU)
NT90=NT90*NPOP/NTTU
NH90=NH90*NPOP/NTTU
NT75=NT75*NPOP/NTTU
NH75=NH75*NPOP/NTTU
NTTU=NPUP
250 CONTINUE
REWIND 31
C
C CALL ROUTINE TO RANK ORDER LWP ARRAY IN DESCENDING ORDER IF IT IS
C REQUIRED TO WRITE OUT WORKER CATEGORY DATA
IF(UPTST.EQ.1)GO TO 255
CALL JDBST2(LSTU,JA,LWP)
CALL JDBST2(KSTD,JA,L8I)
C
C NOW WRITE OUT PERSONNEL NOISE EXPOSURE AND IMPACT DATA
255 IF(UPT(19).NE.0)GO TO 300
NB =0
260 CONTINUE
NLN=40
WRITE(6,6110) (NAME(IJ),J=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(6,6106)
C
C 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(LWP(ILST0(NB)))
```

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MC1

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```
LW=INT(LWPNC(LSTU(NB)))
IF(L8I(LSTU(NB)).LT.-75.0.AND.L8INC(LSTU(NB)).LT.-75.0)GO TO 266
IF(L8I(LSTU(NB)).LT.-75.0)GU TO 267
WRITE(6,6109) JARR3(LSTU(NB)),(KNAME2(LSTU(NB),J),J=1,5),
1JSEQ3(LSTU(NB)),L8I(LSTU(NB)),L8INC(LSTU(NB)),LC,LW
GO TO 269
266 WRITE(6,6301) JARR3(LSTU(NB)),(KNAME2(LSTU(NB),J),J=1,5),
1JSEQ3(LSTU(NB)),LC,LW
GO TO 269
267 WRITE(6,6302) JARR3(LSTU(NB)),(KNAME2(LSTU(NB),J),J=1,5),
1JSEQ3(LSTU(NB)),L8INC(LSTU(NB)),LC,LW
269 CONTINUE
IF(NZT.GE.NLN)GU TO 260
270 CONTINUE
280 CONTINUE
DO 590 JZ=1,JA
JOBG(JZ)=JARR3(JZ)/100
NUMP(JZ)=0
AL82(JZ)=0.
ALVP(JZ)=0.
AL82NC(JZ)=0.
ALVPNC(JZ)=0.
590 CONTINUE
JB=0
DO 595 JZ=1,JA
IF(L8I(JZ).LE.-65.0)L8I(JZ)=-65.0
IF(L8INC(JZ).LE.-65.0)L8INC(JZ)=-65.0
595 CONTINUE
DO 600 JZ=1,JA
IF(JOBG(JZ).EQ.0)GU TO 600
NAV=0
JB=JB+1
JOBG(JB)=JUBC(JZ)
NJ(JB)=JZ
DU 640 IZ=JB,JA
IF(JOBG(IZ).NE.JOBG(JB))GU TO 640
IF(JB.EQ.IZ)GO TO 610
JOBG(IZ)=0
610 CONTINUE
NUMP(JB)=NUMP(JB)+JSEQ3(IZ)
AL82(JB)=AL82(JB)+L8I(IZ)+JSEQ3(IZ)
AL82NC(JB)=AL82NC(JB)+L8INC(IZ)+JSEQ3(IZ)
NAV=NAV+JSEQ3(IZ)
ALVP(JB)=ALVP(JB)+LWP(IZ)
ALVPNC(JB)=ALVPNC(JB)+LWPNC(IZ)
640 CONTINUE
IF(NAV.EQ.0)GU TO 615
AL82(JB)=AL82(JB)/NAV
```

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```
AL82HC(JB)=AL82HC(JB)/NAV
GO TO 600
615 CONTINUE
AL82(JB)=0.
AL82HC(JB)=0.
600 CONTINUE
CALL JUBST2(MSTU,Jd,ALVP)
CALL JUBST2(MSTU,Jd,AL82)
NB=0
660 CONTINUE
NLN=40
WRITE(6,6112) (NAME(J),J=1,9),JBNJNU
WRITE(6,6210)
IF(UPTST.EQ.0)GU TU 665
NLN=NLM-2
WRITE(6,6120)
665 CALL WRITE1(IR,1,ND3,ND4,NTOT,NPLT,NLN)
WRITE(6,6108)
C NOW WRITE OUT LIST
NZT=0
DO 670 IL=1,45
NZT=NZT+1
NB +NB +1
IF(NB .GT.JB)GU TU 680
LC=INT(ALVP(MSTU(NB)))
LH=INT(ALVPHC(MSTU(NB)))
IF(AL82(MSTU(NB)).LT.75.0.AND.AL82HC(MSTU(NB)).LT.75.0)GO TU 666
IF(AL82(MSTU(NB)).LT.75.0)GU TU 667
WRITE(6,6109) Jdbc(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
INUMP(MSTU(NB)),AL82(MSTU(NB)),AL82HC(MSTU(NB)),LC,LH
GO TO 669
666 WRITE(6,6301) Jdbc(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
INUMP(MSTU(NB)),LC,LH
GU TU 669
667 WRITE(6,6302) Jdbc(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
INUMP(MSTU(NB)),AL82HC(MSTU(NB)),LC,LH
669 CONTINUE
IF(NZT.GE.NLN)GU TU 660
670 CONTINUE
680 CONTINUE
300 CONTINUE
JE=JB
C WRITE OUT TOTAL WORKER EXPOSURE
IF(UPT(19).EQ.1)GU TU 670
IF(NZT.LE.23)GO TU 679
678 CONTINUE
WRITE(6,6112)(NAME(J),J=1,9),JBNJNU
WRITE(6,6210)
```

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```
IF(LOPTST.EQ.1)WRITE(6,6120)
CALL WRITER1(IR,I,NU3,NU4,NIUT,NPLT,NLN)
679 CONTINUE
WRITE(6,6130)
302 WRITE(6,6131) NTTU,NT75,NH75,NT90,NH90,SUM,SUMHL
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(DPT(16).NE.0.AND.DPT(17).NE.0)GO TO 400
BUM=0.0
JB=0
LKDT=0
310 READ(31,END=360) KCC,(JUES(J),J=1,2),(M(JJ),H(JJ),HS(JJ),JJ=1,10),
INPRS
IF(NPRS.EQ.0)GO TO 310
IF(H(1).EQ.0)GO TO 310
IF(DPT(25).EQ.1)NPRS=NPRS+NPOP/NTT
JB=JB+1
DO 350 IJ=1,10
IF(M(IJ).EQ.0)GO TO 310
IF(M(IJ).EQ.1000)GO TO 350
KJ=NOM(M(IJ))
IF(KNM1(KJ,3).NE.KDATA(3).AND.KJ.NE.0)GO TO 320
WRITE(6,6002) M(IJ)
GO TO 350
320 CONTINUE
ALJ= H(IJ)*10.0*(ALEQ2(KJ)/10.0)*OPT(8)/4.0
IF(L61(JB).LE.75.0)GO TO 336
NPEUP(KJ)=NPEUP(KJ)+NPRS
HPJ= NPRS*ALJ/10.0+(LB11(JB)/10.0)
IF(KKK.EQ.2)WPJ=(HPJ/NPRS)*LWP(JB)
IFI(JCHK(KJ).EQ.0)GO TO 325
KAUD=JTC(JCHK(KJ))
DO 326 J=1,KADU
IF(LCD1(JCHK(KJ),J).EQ.1000)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
```

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```
LWPJ(KJ)=LWPJ(KJ)+WPJ
327 CONTINUE
  SUM=SUM+WPJ
336 CONTINUE
350 CONTINUE
  GU TO 310
360 CONTINUE
  DU 370 IJ=1,JMAX
  IF(LWPJ(IJ).GT.0.001)GU 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(SUM.LE.0.0)GO TO 370
  LWPN(IJ)=LWPJ(IJ)/SUM
370 CONTINUE
  REMIND 31

C   NUM WRITE OUT EQUIPMENT IMPACT DATA
C
C   PUT ARRAY LWPN IN DESCENDING ORDER THEN WRITE OUT IMPACT DATA
  LX=0
  OPTST=0
  JMZ=JMAX-LCA
  JRDZ=JMZ-LKDT
  CALL JUBST2(ORDZ,JMZ,LWPJ)
380 CONTINUE
  IF(UPT(16).NE.0)GO TO 400
  NB=0
382 CONTINUE
  NLN=30
  IF(UTST.EQ.1)GO TO 383
  WRITE(6,6105) (NAME(J),J=1,9),JBNJNU,KKK
  WRITE(6,6210)
  GO TO 384
383 CONTINUE
  WRITE(6,6111) (NAME(J),J=1,9),JBNJNU,KKK
  WRITE(6,6210)
384 CONTINUE
  IF(OPTST.EQ.0)GO TO 385
  NLN=NLN-2
  WRITE(6,6120)
385 CALL WRITE1(IR,I,ND3,ND4,NTOT,NPLT,NLN)
  WRITE(6,6106)
C   NUM WRITE OUT LIST
```

```

N2T=0
DO 390 IL=1,45
NB =NB +1
N2T=N2T+1
ORD2(NB)=ORD2(NB)+LX
IF(NB .GT.JMD2)GO TO 345
IF(NPEUP(ORD2(NB)).EQ.0)GU TO 395
CHLJ=ALEQ2(ORD2(NB))+STUAM(URD2(NB))
AC= LHPJ(ORD2(NB))
WRITE(6,6107) JARR(URD2(NB)),KNAM1(ORD2(NB),J),J=1,51,JSEU(ORD2(N
181),ALEQ2(ORD2(NB)),CHLJ,NPEUP(URD2(NB)),AC, LHPN(URD2(NB))
IF(N2T.GE.NLM)GU TO 382
390 CONTINUE
395 CONTINUE
IF(IUPT(24).EQ.0)GO TO 400
IF(UTST.EQ.1)GU TO 400
UTST=1
C CALCULATE NUMBER OF PEOPLE TO WRITE IN DATA AVERAGES
LD=JMAX-LCA+1
DO 510 LZ=1,LCA
DO 505 LZ=1,JM2
IF(JCMK(LZ).NE.0)GU TO 505
IF(JARR(LZ).LE.MAC3(LZ).AND.JARR(LZ).GE.MAC2(LZ))GO TO 500
IF(JARR(LZ).EQ.MAC1(LZ))GU TO 500
GU TO 505
500 CONTINUE
LHPJ(LZ+JM2)=LHPJ(LZ+JM2)+LHPJ(LZ)
LHPN(LZ+JM2)=LHPN(LZ+JM2)+LHPN(LZ)
NPEUP(LZ+JM2)=NPEUP(LZ+JM2)+NPEUP(LZ)
505 CONTINUE
510 CONTINUE
DO 410 IH=1,LCA
IF(LHPJ(IH+JM2).LT.1.E-3)LHPJ(IH+JM2)=ALEQ2(IH+JM2)*1.E-12
1+FLUAT(IH)+1.E-15
STUM3(IH)=LHPJ(IH+JM2)
410 CONTINUE
LX=JM2
JM2=LCA
JM2=LCA
CALL JUBST2(ORD2,LCA,STUM3)
GO TO 380
6001 FORMAT(//12X,11HOPTION 2 = ,1I.1X,27HMAS NOT BEEN PROGRAMMED YET/
1 9X,21HTRY OPTION 2 = 0 OR 1)
6002 FORMAT(//12X,27HNU DATA FOR EQUIPMENT CODE ,1I)
6130 FORMAT(///)
6131 FORMAT(//12X,7DH*****8*****8*****8*****8*****8*****8*****8*****8*/
1 *****8*****8*****8*****8*****8*****8*****8*****8*****8*****8*****8*/
212X,46HTOTAL NUMBER OF PERSONNEL,26X,16/
212X,46HTOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN), 5X,16/

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312X,46HTOTAL NUMBER OF PERSUNNEL WITH LEQ > 75 (H.C.), 5X,16/
412X,46HTOTAL NUMBER OF PERSUNNEL WITH LEQ > 90 (MEAN), 5X,16/
512X,46HTOTAL NUMBER OF PERSUNNEL WITH LEQ > 90 (H.C.), 5X,16/
612X,32HLEVEL WEIGHTED POPULATION (MEAN),18X,F9.1/
712X,32HLEVEL WEIGHTED POPULATION (H.C.),18X,F9.1//
812X,70H*****
9*****
6102 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16//22X,5HBACKGRDNU
1D AND EQUIPMENT NOISE DATA AVERAGES (LEQ)')/
6103 FORMAT(12X,6HEQUIP.,7X,16H GENERIC NAME ,6X,7HNU. OF ,6X,
18H MEAN ,6X,5HSTD. ,12X,6H CODE , 29X,7HSAMPLES,6X,8HLEV(DBA),
26X,5HDEY. //)
6104 FORMAT(13X,14,7X,5A4,4X,14, 9X,F5.1,7X,F5.2)
6105 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16,
120X,14HALTERNATIVE = ,12,
//36X,22HEQUIPMENT NOISE IMPACT')/
6106 FORMAT(12X,6HEQUIP.,3X,17H EQUIPMENT ,3X,5HNU. OF ,3X,
14HMEAN,3X,4HM.C.,3X,5HNU.OF,2X, 8HPRIORITY,1X,5HNU.M./
2 12X,6H CODE ,3X,17H DESCRIPTION ,3X,5HUNITS,
33X,4H LJ ,3X,4H LJ ,3X,5HPEERS.,3X,5HINDEX,3X,4HP.I.//
6107 FORMAT(13X,14,4X,5A4,14,3X,F5.1,2X,F5.1,1X,16,1X,F8.1,1X,F6.3)
6108 FORMAT(13X,3HJOB,3X,20H JOB DESCRIPTION ,3X, 6HNU. OF,3X,
112HSOUND LEVEL, 4X,14HLEV. WT. POP. ,12X,4HCODE,26X,6HPEERS. ,
24X,5HMEAN ,2X,5HM.C.,3X,6H MEAN ,2X,6H M.C. //)
6109 FORMAT(11X,15,5X,5A4,16, 4X,F5.1,2X,F5.1,2X,17,1X,17)
6110 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16//29X,35HPEPERSONNEL
1 NOISE EXPOSURE AND IMPACT')/
6120 FORMAT(26X,41HAFTER NOISE CONTROL ON SELECTED EQUIPMENT)/
6301 FORMAT(11X,15,5X,5A4,16, 4X,5H<75.0,2X,5H<75.0,2X,17,1X,17)
6302 FORMAT(11X,15,5X,5A4,16, 4X,5H<75.0,2X,F5.1 ,2X,17,1X,17)
6202 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16//24X,47HEQUIPMENT
1 NOISE DATA AVERAGES (LEQ) GENERALIZE')/
6111 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16,
120X,14HALTERNATIVE = ,12,
//29X,31HEQUIPMENT NOISE IMPACT AVERAGES')/
6112 FORMAT(1H1 '////12X,9A4,15X,12HB8N JOB NU. ,16//25X,44HPERSONNEL
1 NOISE EXPOSURE AND IMPACT AVERAGES')/
6210 FORMAT(40X,12HEPA CRITERIA)/
400 CONTINUE
810 CONTINUE
RETURN
END

C1 RELEASE 2.0

SORTWC

JDATE = 61141

20/44/01

```
SUBROUTINE SORTWC(NPLT,NTOT,K1,I2,UPTST)
IMPLICIT INTEGER (I)
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),CNJRM(200,10),SNURM(200,10),JCUDC(200),LTS
1T(200),KH(10)
COMMON/ITSDE/ITST(50),UPT(30),NTST(50)
COMMON/ISICP/ 1CS(20),IPS(20,50),INU(20)
COMMON/NCOM/NGM(10000)
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/NM/NAME(9),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
C THIS SUBROUTINE SORTS 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=1TST(K1)
IF(UPT(23).EQ.0)GO TO 20
JTST=10
DO 10 IP=1,NPLT
JTST=MNO(JTST,ITST(IP))
10 CONTINUE
20 CONTINUE
READ(40)      JCD,(JDES(J),J=1,5),JNP,(H(JJ),JJ=1,10),JDATE
1,MLT1
IF(JNP.EQ.0)GO TO 20
JC=JCD-1000 +(JCD/1000)
JC1=JC/1000000
50 READ(40,END=80)KC0,(KDES(J),J=1,5),KNP,(KM(JJ),KH(JJ),JJ=1,10),
1JDATE
1,MLT1
IF(KNP.EQ.0)GO TO 60
KC=KC0-1000*(KCD/1000)
KC1=KC/1000000
GO TO 70
80 LF=1
REWIND 40
70 IF(LF.EQ.0)GO TO 150
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( M(J).EQ.MX(K,L))GOTO 140
130 CONTINUE
```

1 RELEASE 2.0

SURTHC

JDATE = 81141

20/44/01

```
GO TO 110
140 CONTINUE
120 CONTINUE
GO TO 160
110 CONTINUE
150 I=I+1
LTST(I)=1
NP(I)=JNP
C NOW NORMALISE THE M(J)
HXTUT=0.0
DO 160 L=1,10
HXTUT=HXTUT+M(L)
160 CONTINUE
DO 170 L=1,10
HN(I,L)=M(L)*JNP/HXTUT
STDN(I,L)=(HN(I,L)*+2)/JNP
MX(I,L)=M(L)
170 CONTINUE
JCUDF(I)=DFLOAT(JC1)*100000000.0+JL*100+I-1
IF(JTST.EQ.4)JCUDF(I)=DFLOAT(JCU)*100.0+I-1
IF(JTST.EQ.3)JCUDF(I)=JL *100+I-1+(10000000.*DFLOAT(JCU/100000))
GO TO 205
C
C WE NOW COMBINE TWO BLOCKS OF DATA CONTAINING THE SAME EQUIPMENT
C NORMALISE THE NEARLY ACQUIRED DATA FIRST
C
180 HXTUT=0.0
DO 190 L=1,10
HXTUT=HXTUT+M(L)
190 CONTINUE
DO 270 J=1,10
DO 280 L=1,10
IF(M(JJ).EQ.0)GO TO 200
IF(M(JJ).NE.MX(K,L))GU TU 280
GU TO 290
280 CONTINUE
GO TO 270
290 HN(K,L)=HN(K,L)+M(J)*JNP/HXTUT
STDN(K,L)=STDN(K,L)+(H(J)/HXTUT)*+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
```

G1 RELEASE 2.0

SORTHC

JATE = 81141

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```
M(L)=KM(L)
H(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=1,1
      J=I-JG+1
      ANP=FLDAT(NP(J))
      CTUT=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(ILTST(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 465
      SNURM(J,L)=SORT(FUNCT)/CTUT
      GO TO 470
465  CONTINUE
      SNURM(J,L)=0.0
470  CONTINUE
      GO TO 300
480  CONTINUE
      DO 490 L=1,10
      SNURM(J,L)=0.0
490  CONTINUE
300  CONTINUE
      HKITE(J1),JCODE(J),JDE5(L1),L=1,5),IMX(J,LL),CNORM(J,LL),
      ISNURM(J,LL),LL=1,10),NP(J)
340  CONTINUE
      IF(LF.EQ.1)GO TO 350
      JC=KC
      JC1=KC1
      JCU=KCD
      I=0
      DO 345 L=1,5
      JDE5(L)=KDE5(L)
345  CONTINUE
      GO TO 60
350  CONTINUE
      END FILE 31
      REMIND 31
```

C

1 RELEASE 2.0

SOKTHC

JDATE = 81141

20/44/01

C NUM WRITE OUT PERSONNEL WORK ASSIGNMENT AVERAGES
C
IF(IUPTST.EQ.1)GO TO 400
IF(IUPT(18).NE.0)GO TO 400
355 WRITE(6,6002) (NAME(J),J=1,9),JBNJYD
WRITE(6,6001)
NLN=40
CALL WRITE1(12,KI, NDS, ND4,NTOT,NPLT,NLN)
NLT=NLN-5
WRITE(6,6003)
C NUM WRITE OUT LIST
NZT=0
DU 360 IL=1,45
READ(31,END=390) KCC,(JUES(L),L=1,5),(M(LL),H(LL),KM(LL)),LL=1,10)
1,MPPS
NZT=NZT+1
M(1)=M(1)*8.0
KH(1)=KH(1)*8.0
JD=IDINT(KCC-100000.0*UFLOAT(IDINT(KCC/100000.0))+0.1)
WRITE(6,6004) JD,(JUES(L),L=1,5),NPPS,M(1),M(1),KH(1)
DU 370 IP=2,10
IF(M(IP)).EQ.0)GO TO 380
NZT=NZT+1
M(IP)=M(IP)*8.0
KH(IP)=KH(IP)*8.0
WRITE(6,6005) M(IP),H(IP),KH(IP)
370 CONTINUE
380 CONTINUE
NZT=NZT+1
WRITE(6,6006)
.IF(NZT.GE.NLT)GO TO 355
360 CONTINUE
390 REWIND 31
400 CONTINUE
6001 FORMAT(130X,34HPERSUNNEL 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(1/13X,3HJUB,6X,15HJUb DESCRIPTION,6X,6HNU. UF,3X,6HEQUIP.,
13X,9HNUR. MEAN,3X,9HNUR. STD./12X,4HCODE,27X,5HPERS.,5X,4HCODE,
24X,9HTIME-8MRS,3X,9HDEVIATION//)
6005 FORMAT(53X,14,7X,F3.1,9X,F4.2)
6006 FORMAT(12X)
RETURN
END

GL RELEASE 2.0

MCUT

JDATE = 01141

20/44/01

```
SUBROUTINE MCUT(NTP,KMC,JBL,NPLT,I,NPLTI,MKSIC,LADU)
IMPLICIT INTEGER (I)
REAL*8 MC
COMMON/IDXC/DCU1(150,20),LCLD1(150,20),LCODE(3),DEC(3),JCHKA>001,
JTC(150),JTC2(150),AINC,UY,ANTH,EULY,NEN,NACC
COMMON/ITSUE/ITST(50),UPT(30),NTST(50)
COMMON/EMC/MCODE(5),MNAME(5),JDATE
COMMON/EQ1/ALEW2(500),STDAR(500),K4AM1(500,5),JARR(500),JSE0(500)
COMMON/NCDM/NOM1(10000)
C
C THIS SUBROUTINE SEARCHES FOR SOME MACHINE DATA OUTSIDE THE GIVEN
C DATES IF NONE EXISTS BETWEEN THEM
C
      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=I,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),
     1,MLT1
      MCODE=IDINT(MC/10000000.0)*100
      MCODE(1)=IDINT(MC/10000000.0)*MLT1
      MCODE(2)=IDINT(MC/10000000.0)*MLT1
      MCODE(3)=IDINT(MC/1000000.0)
      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.UPT17).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.MCODE0 .EQ.MKSIC).GO TO 24
      GO TO 10
24     CONTINUE
      MSUP=1
20     LF=0
      KCJD=LCODE(1)
      KAJO=0
      IF(UPT(27).EQ.0)KCJD=0
      IF(KCJD.EQ.0)GO TO 1335
      DU 1334 J=1,3
```

1 RELEASE 2.0

MCU1

DATE = 81141

20/44/01

```
DCU1(LADD,J)=DEC(J)
LCU1(LADD,J)=LCUDE(J)
IF(LCOJE(J).NE.0)KADD=KADD+1
1332 CONTINUE
1335 CONTINUE
CALL ZC(JADD,LKTST,NDT1,KBT,NTST1,NTST2,ALEQ,NTP,NUT2,KTST1,KTST2,
      LLAUD,KCUD,MKSIC,MSUP,NTST3,KADD,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)=SUM1/ISUM
IF(J2.EQ.1SUM.UK.SUM2.EQ.0)GO TO 110
STDAM(JTT)=SQRT1SUM2/(ISUM-J2))
110 JSEQ(JTT)=ISUM
JAKR(JTT)=KMC
JBL=JBL+1
NOM(KMC)=JTT
6001 FORMAT(//12X,29H THERE IS NO DATA FOR MACHINE ,14,27H BETWEEN THE DA
     TES SPECIFIED/12X,30H NOH LOOK OUTSIDE THE DATES SPECIFIED/1)
6002 FORMAT(//12X,41H NO DATA AT ALL EXISTS FOR MACHINE NUMBER ,14/1)
200 RETURN
END
```

GI RELEASE 2.0

WRITE1

DATE = 81141

20/44/01

```
SUBROUTINE WRITE1(I,K1,IDATE3,1DAT=4,NTOT,NPLT,NLN)
IMPLICIT INTEGER (D)
COMMON/MM/NAME(9),JDNJNU,SNAME(50,7),NPL(50),NSIC(50)
COMMON/ISICP/ICS(20),IPS(20,50),INU(20)
COMMON/MCOM/NCM(10000)
COMMON/ITSUE/ITST(50),OPT(10),NTST(50)
DIMENSION IDATE3(50),IDATE4(50)
NP1=1900+IDATE3(K1)
NP2=1900+IDATE4(K1)
JTST=ITST(K1)
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(NPI,IDATE3(IP))
NP2=MAX0(NP2,IDATE4(IP))
2 CONTINUE
NP1=NP1+1900
NP2=NP2+1900
GU TO 5
5 CONTINUE
IF(NPL(K1).LT.0)JTST=5
6 CONTINUE
IF(NP1.EQ.1900.AND.NP2.EQ.1900)GO TO 100
IF(OPT(7).EQ.0)GU TO 10
WRITE(6,6001) NTOT,NP1,NP2
GU TU 200
10 CONTINUE
IF(OPT(23).EQ.0)GU TO 40
IF(JTST.EQ.1.OK.JTST.EQ.2.OK.JTST.EQ.3)GU TU 20
IFI JTST.EQ.5)GU TU 25
DO 15 IJ=1,I
WRITE(6,6002) ICS(IJ),NP1,NP2
ID=1
IB=ID+11
11 CONTINUE
IFI IB.GT.IND(IJ))IB=INU(IJ)
WRITE(6,6003) (IPS(IJ,IL),IL=ID,IB)
IFI IB.GE.IND(IJ))GU TO 19
ID=ID+12
IB=ID+11
NLN=NLN-1
GU TO 11
15 CONTINUE
GU TU 200
```

L RELEASE 2.0

WRITEL

DATE = 81141

20/44/01

```
20 WRITE(6,6006)
  DO 30 IJ=1,1
    WRITE(6,6007) ICS(IJ),INULIJ
    NLN=NLN-1
  30 CONTINUE
  GO TO 200
25 CONTINUE
  WRITE(6,6106) MP1,NP2
  WRITE(6,6107)(ICS(IJ),IJ=1,1)
  NLN=NLN-1
  GU TO 200
40 IF(JTST.EQ.1.OR.JTST.EQ.2.UR.JTST.EQ.3)GO TU 60
  IF(JTST.EQ.5)GU TO 70
  WRITE(6,6008) ICS(1),IPS(1,1),NP1,NP2
  GU 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(UPT(7).EQ.0)GU TU 110
  WRITE(6,6011) NTOT
  GO TO 200
110 CONTINUE
  IF(OPT(23).EQ.0) GU TO 240
  IF(JTST.EQ.5)GU TO 125
  IF(JTST.EQ.1.OR.JTST.EQ.2.OR.JTST.EQ.3)GO TU 120
  DU 150 IJ=1,1
  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
```

GL RELEASE 2.0

WRITEL

JDATE = 81141

20/44/0L

```
      GO TO 111
150 CONTINUE
      GO TO 200
120 WRITE(6,6016)
      DO 130 IJ=1,I
      WRITE(6,6007) ICS(IJ),INU(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)GU TO 170
      WRITE(6,6018) ICS(1),IPS(1,1)
      GO TO 200
160 CONTINUE
      ID=1
      IB=ID+11
      WRITE(6,6012) ICS(1)
161 CONTINUE
      IF(IB.GT.INU(1))IB=INU(1)
      WRITE(6,6013) (IPS(1,IL),IL=ID,IB)
      IF(IB.GE.INU(1))GU TO 200
      NLN=NLN-1
      ID=ID+12
      IB=ID+11
      GU 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,13MPLANT NOS. = ,12(13,1H,1))
6004 FORMAT(25X,16I3)
6005 FORMAT(12X,29HTOO MANY PLANTS FOR SIC CODE ,I4,/12X,55HINCREASE
     1ARRAY SIZE IN SUBROUTINE WRITEL TO AT LEAST ,I3,25H AND CHANGE
     2SOME LOGIC)
6006 FORMAT(12X, 8HSIC CODE,I4X,13HN0. JF PLANTS,I4X,
     18HPERIOD: ,I4,4H TU ,I4)
6007 FORMAT(14X,I4,20X,I3)
6008 FORMAT(12X, 11HSIC CODE = ,I4 ,1IX,12HPLANT NO. = , 12, 9X,
     18HPERIOD: ,I4,4H TU ,I4)
6009 FORMAT(12X,11HSIC CODE = ,I4, 9X,15HNO. OF PLANTS = ,I2, 7X,
```

1 RELEASE 2.0

WRITE1

DATE = 81141

20/44/01

1dHPERIOD: ,14,4H TU ,14
6011 FORMAT(12X,23HALL SIC CODES SPECIFIED, 5X,17H NU. OF PLANTS + ,
112, 5X,18HNO DATES SPECIFIED)
6012 FORMAT(12X,11HSIC CODE = ,14,36X,16HNO DATES SPECIFIED)
6013 FORMAT(12X,13HPLANT NOS. = ,12(13,1H,))
6016 FORMAT(12X,8H IC CODE,44X,23HNU. O PLANTS,14X,
118HNO DATES SPECIFIED)
6018 FORMAT(12X,11HSIC CODE = ,14,12X,12HPLANT NU. = ,12,10X,
118HNO DATES SPECIFIED)
6019 FORMAT(12X,11HSIC CODE = ,14,10X,16HNU. OF PLANTS = ,12, 8X,
118HNO DATES SPECIFIED)
6029 FORMAT(12X,11HSIC CODE = ,14, 8X,20HAVERAGE FOR INDUSTRY,7X,
118HNO DATES SPECIFIED)
6039 FORMAT(12X,11HSIC CODE = ,14, 8X,20HAVERAGE FOR INDUSTRY,6X,
18HPERIOD: ,14,4H TU ,14)
6106 FORMAT(12X,41HINDUSTRY AVERAGES FOR FOLLOWING SIC CODES,10X,
18HPERIOD: ,14,4H TU ,14)
6107 FORMAT(12X,16I3)
6116 FORMAT(12X,41HINDUSTRY AVERAGES FOR FOLLOWING SIC CODES,10X,
11dHNO DATES SPECIFIED)
RETURN
END

GI RELEASE 2.0

JOB SRT

DATE = 81141

20/44/01

```
SUBROUTINE JOBSRT(JST0,N)
DIMENSION JST0(600),KSP(500),KSSC3(500)
COMMON/ISORT/KKP(600),KSIC3(600)
C THIS SUBROUTINE SURTS ARKAY JNP IM DESCENDING ORDER OF MAGNITUDE
C IF ANY TWO ELEMENTS ARE EQUAL, THE CURRESPUNDING 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
  JST0(I)=I
  IBT=KSP(I)
  KBT=KSSC3(I)
  DO 20 K=1,N
    IF(GBT.GT.KSP(K))GO TO 20
    IF(GBT.NE.KSP(K))GO TO 30
    IF(KBT.GT.KSSC3(K))GO TO 20
    JST0(I)=K
    KBT=KSSC3(K)
    GO TO 20
30 JST0(I)=K
  KBT=KSSC3(K)
  IBT=KSP(K)
20 CONTINUE
  KSP(JST0(I))=0
  KSSC3(JST0(I))=0
10 CONTINUE
RETURN
END
```

1 RELEASE 2.0

JOBST1

DATE = 81141

20/44/01

```
SUBROUTINE JOBST1(JST0,N,JCODE1)
DIMENSION JST0(600),JBN(600),JCODE1(600)

C THIS SUBROUTINE SORTS ARRAY JCODE1 IN DESCENDING ORDER OF MAGNITUDE
C THE ORDER IS STORED IN ARRAY JST0

DO 5 I=1,N
JBN(I)=JCODE1(I)
5 CONTINUE
DO 10 I=1,N
JST0(I)=I
IBT=JBN(1)
DO 20 K=1,N
IF(IBM.GT.JBN(K))GO TO 20
JST0(I)=K
IBM=JBN(K)
20 CONTINUE
JBN(JST0(I))=0
10 CONTINUE
RETURN
END
```

G1 RELEASE 2.0

JUBST2

DATE = 81141

20/44/01

```
SUBROUTINE JUBST2(URD2,N,AMP)
IMPLICIT INTEGER (I)
DIMENSION ORD2(500),AMP(500),AN(500)

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
  URD2(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(URD2(I))=0.0
10 CONTINUE
RETURN
END
```

RELEASE 2.0

JOBSTS

JATE = 81141

20/44/01

```
SUBROUTINE JOBSTS(JSTO,N,JCODE1)
REAL*8 JBN,JCODE1,IBT
DIMENSION JSTO(600),JBN(600),JLUDE1(600)

C THIS SUBROUTINE SORTS ARRAY JCODE1 IN DESCENDING ORDER OF MAGNITUDE
C 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(K)=I
C FIRST OF ALL RANK ORDER LMP ARRAY
  IBT=JBN(K)
20 CONTINUE
  JBN(JSTO(1))=0
10 CONTINUE
RETURN
END
```

G1 RELEASE 2.0

NPSG

DATE = 81141

20/44/01

```
SUBROUTINE NPSG(NTOT,IB)
IMPLICIT INTEGER (I)
```

```
COMMON/ISORD/ ORD2(600),NPEUP(600),MULT1(600)
```

```
COMMON/ISICP/ ICS(20),IPS(20,50),I4U(20)
```

```
DIMENSION JUES(5),MX(10),CN(10)
```

```
C THIS SUBROUTINE FINDS THE NO OF PLANTS AND THEIR CORRESPONDING
C ID NUMBERS FOR EACH SIC CODE CONSIDERED
```

```
NTOT=0
```

```
IC1=0
```

```
I=0
```

```
J=1
```

```
DO 10 JCB=1,IB
```

```
IC2=IC1
```

```
JCODE=NPEUP(ORD2(JCB))
```

```
C
```

```
IC1=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 I=NU OF DIFFERENT SIC CODES CONSIDERED
```

```
J=NU OF DIFFERENT PLANTS FOR A GIVEN SIC CODE
```

```
IF(I.EQ.1)GO TO 10
```

```
IND(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
```

```
IND(I)=J
```

```
NTOT=NTOT+J
```

```
RETURN
```

```
END
```

. RELEASE 2.0

WRITER2

DATE = B1141

20/44/01

```
SUBROUTINE WRITER2(OPTST, JA, NRUN, LCA, JMAX, IR, I, NPLT, NTOT, JBL, NTIS
2, KKK, JMD2)
  IMPLICIT INTEGER (I)
  REAL LB1, LB1HC, LHP, LHPHC, LHPJ, LHPHCJ, LHPN, LHPHGN, LIJ, LJSHC
1, JCUDER2*8
  COMMON/COSHA/ SHM(10), SLEVNC(10),                JDES(5), MEL01, H(10),
1HS(10), NEXPWC,   JCUDER2(5), LWPJ(500), LWPN(500), NEXP, LADD
7, KUATA(5)
  COMMON/E01/ALEQ2(500), STDM1(500), KNAME1(500,5), JARR1(500), JSEQ(500)
  COMMON/E02/ALEQ3(500), STDM3(500), KNAME2(500,5), JARR3(500), JSEQ3(500
10)
  COMMON/ITSDE/ ITST(50), OPT(50), NST(50)
  COMMON/NM/NAME(9), JBNJNU, SNAME(50,7), NPL(50), NSIC(50)
  COMMON/DD/MAC1(500), MAC2(50), MAC3(50), JCUDER2(50), NSC(50)
  COMMON/NCOM/NOM(10000)
  COMMON/NHC/LHP(500), LHPHC(500), NT90, NH90, NT75, NH75, NTTU, LSTD(500),
1KSTU(500), LB1(500), LB1HC(500), SUM, SUMHL, LNT90, LNT75, LNH90, LNH75,
2ALB2(500), ALB2HC(500), ALVP(500), ALVPHC(500), NUMP(500), JDBES2(50,5),
3NST(500), NSTD(500), NJ(500), JE, UKD(500), JDBES2(50,5), RSUM, RSUMHL
  COMMON/DTE/MD1(50), ND2(50), ND3(50), ND4(50), NPPP(50)
  COMMON/ISICP/ICS(20), IPS(20,50), INO(20)
  COMMON/IDX2/DCD1(150,20), LCD1(150,20), LCODE(3), DEC(3), JCHK(600),
1JTC(150), JTC2(150), AIMC, OY, ANTH, EQLV, NEM, NACC
  COMMON/ISORU/ ORD2(600), NPEDP(600), MOLT1(600)
```

C THIS SUBROUTINE WRITES OUT THE PERSONNEL EXPOSURE AND EQUIPMENT
C IMPACT DATA FOR RESULTS IN DSHA FORMAT
C

IF(KKK.EQ.2)GO TO 998
CALL JDBST2(LSTU,JA,LWP)
CALL JDBST2(KSTU,JA,LB1)

C NOW WRITE OUT PERSONNEL NUISE EXPUSURE AND IMPACT DATA
C

```
IF(OPT(19).NE.0)GO TO 300
NB=0
260 CONTINUE
NLN=36
WRITE(6,6103)(NAME(J),J=1,9),JBNJNU
WRITE(6,6002)
IF(OPTST.EQ.0)GO TO 265
WRITE(6,6006)
NLN=NLN-2
265 CONTINUE
IF(NLN.EQ.1)WRITE(6,6021)
WRITE(6,6007) ANTH, EQLV, NEM
CALL WRITER1(IR,I,ND3,ND4,NTOT,NPLT,NLN)
WRITE(6,6008)
```

GI RELEASE 2.0

WRITE2

DATE = 81141

20/44/01

C MUW WRITE OUT LIST
NZT=0
DO 270 IL=1,45
NZT=NZT+1
NB=NB+1
IF(NB.GT.JA)GO TO 280
AC= LMP1(LSTU(NB))
AH= LMPHC(LSTO(NB))
AL1=L8I(LSTO(NB))
AL2=L8IWC(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
WKITE(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.NLM)GO TO 260
270 CONTINUE
280 CONTINUE
DO 590 JZ=1,JA
JOBG(JZ)=JARR3(JZ)/100
NURP(JZ)=0
ALBZ(JZ)=0.0
ALBZHC(JZ)=0.0
ALVPHC(JZ)=0.0
590 CONTINUE
JB=0
DO 595 JZ=1,JA
IF(L8I(JZ).LE.65.0)L8I(JZ)=65.0
IF(L8IWC(JZ).LE.65.0)L8IWC(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

L RELEASE 2.0

WRITE2

DATE = 81141

20/44/01

```
610 CONTINUE
    NUMP(JB)=NUMP(JB)+JSE03(IZ)
    NAV=NAV+JSE03(IZ)
    ALVP(JB)=ALVP(JB)+LWP(IZ)+JSE03(IZ)
    ALVPHC(JB)=ALVPHC(JB)+LWPNC(IZ)+JSE03(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)GU TO 615
    AL82HC(JB)=3.322*ALUG10(ALVPHC(JB))+NEN*EQLV
    IF(ALVP(JB).LE.1.E-5)GU TO 601
    AL82(JB)=3.322*ALUG10(ALVP(JB))+NEN*EQLV
    GO TO 600
615 CONTINUE
    AL82HC(JB)=0.0
601 CONTINUE
    AL82(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)=AL82(NI)*1.E-12
605 CONTINUE
    CALL JOBST2(MST0,JB,ALVP)
    CALL JOBST2(NST0,JB,AL82)
    NB=0
660 CONTINUE
    NLN=36
    WRITE(6,6103)(NAME(J),J=1,7),JB,NMJ
    WRITE(6,6003)
    IF(OPTST.EQ.0)GU TO 665
    NLN=NLN-2
    WRITE(6,6006)
665 CONTINUE
    IF(INTIS.EQ.1)WRITE(6,6021)
    WRITE(6,6007) ANTH,EQLV,NEN
    CALL WRITE1(IR,I,NU3,NU4,NTUT,NPLT,NLN)
    WRITE(6,6008)
C   NMW WRITE OUT LIST
    N2T=0
    DO 670 IL=1,45
    N2T=N2T+1
    NB=NB+1
    IF(NB.GT.JB)GO TO 680
    AC=    ALVP(MST0(NB))
    AH=    ALVPHC(MST0(NB))
    AL1=AL82(MST0(NB))
    AL2=AL82HC(MST0(NB))
    IF(AL1.LT.ANTH.AND.AL2.LT.ANTH)GO TO 665
```

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```
IF(AL1.LT.ANTH)GO TO 667
WRITE(6,6009) J0BC(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
1 NUMP(MSTO(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(MSTO(NB)),ANH,ANTH,AC,AM
GO TO 669
667 WRITE(6,6010) J0BC(MSTU(NB)),(KNAME2(NJ(MSTU(NB)),J),J=1,5),
1 NUMP(MSTO(NB)),ANTH,ANTH,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(UOPT(19).EQ.1)GO TO 678
IF(INZT.LE.23)GO TO 679
678 CONTINUE
WRITE(6,6103)(NAME(J),J=1,9),JBNJNU
WRITE(6,6003)
IF(UPTST.EQ.1)WRITE(6,6006)
WRITE(6,6007) ANTH,EQLV,NEN
CALL WRITE1(IR,I,ND3,ND4,NTUT,NPLT,NLN)
679 CONTINUE
WRITE(6,6012)
WRITE(6,6013) NTU,NEXP,NEXPHC
IF(MRUN.GT.1.AND.NTIS.EQ.0)GO TO 400
C   WRITE OUT EQUIPMENT IMPACT DATA
C   PUT ARRAY LMPN IN DESCENDING ORDER
C
998 CONTINUE
LX=0
DTST=0
JMZ=JMAX-LCA
CALL J0BST2(ORD2,JMZ,LMPJ)
380 CONTINUE
IF(UOPT(16).NE.0)GO TO 400
NB=0
382 CONTINUE
NLN= 26
WRITE(6,6001)(NAME(J),J=1,9),JBNJNJ,KKK
IF(UTST.EQ.1)GO TO 383
WRITE(6,6004)
GO TO 384
383 CONTINUE
```

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```
      WRITE(6,6005)
384 CONTINUE
      IF(IUTST.EQ.0)GU TU 389
      MLN=MLN-2
      WRITE(6,6006)
389 CONTINUE
      IF(INTIS.EQ.1)WRITE(6,6011)
      WRITE(6,6007) ANTH,EQLV,NEN
      CALL WRITE1(IR,1,ND3,ND4,NTOT,NPLT,MLN)
      WRITE(6,6014)

C NOW WRITE OUT LIST
      NZT=0
      DU 390 IL=1,45
      NB=NB+1
      NZT=NZT+1
      ORD2(NB)=ORD2(NB)+LX
      IF(NB .GT. JMDZ)GO TU 395
      IF(NPEUP(ORD2(NB)).EQ.0)GO TO 395
      CHLJ=ALEQ2(ORD2(NB))+STUAM(ORD2(NB))
      AC=LWPJ(ORD2(NB))
      WRITE(6,6015) JARR(ORD2(NB)),(KNAM1(ORD2(NB),J),J=1,5),
      1JSEQ(ORD2(NB)),ALEQ2(ORD2(NB)),CHLJ,NPEOP(ORD2(NB)),AC, LWPN(ORD
      22(NB))
      IF(NZT.GE.NLN)GO TU 382
390 CONTINUE
395 CONTINUE
      IF(DPT(24).EQ.0)GO TO 400
      IF(IUTST.EQ.1)GU TO 400
      DTST#1

C CALCULATE NUMBER OF PEOPLE ETC. TO WRITE IN DATA AVERAGES
      LU=JMAX-LCA+1
      DU 510 IZ=1,LCA
      DO 505 LZ=1,JMZ
      IF(JCHK(LZ).NE.0)GU 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
      GU TO 505
500 CONTINUE
      LWPJ(IZ+JMZ)=LWPJ(IZ+JMZ)+LWPJ(LZ)
      LWPN(IZ+JMZ)=LWPN(IZ+JMZ)+LWPN(LZ)
      NPEUP(IZ+JMZ)=NPEOP(IZ+JMZ)+NPEUP(LZ)
505 CONTINUE
510 CONTINUE
      DU 410 IH=1,LCA
      IF(LWPJ(IH+JMZ).LT.1.E-3)LWPJ(IH+JMZ)=ALEQ2(IH+JMZ)+1.E-12
      1+FLUAT(IH)*1.E-15
      STDM3(IH)=LWPJ(IH+JMZ)
410 CONTINUE
```

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```

LX=JM2
JMDZ=LCA
JNZ=LCA
CALL JUBST2(OKD2,LCA,STUM3)
GO TO 380
6001 FORMAT(1H1////12X,9A4,15X,12H&BN 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(1/30X,32HEQUIPMENT NOISE CONTROL PRIORITY//)
6005 FORMAT(1/26X,41HEQUIPMENT NOISE CONTROL PRIORITY AVERAGES//)
6006 FORMAT(26X,41HAFTEK 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        = ,I1,4H DBA/
6008 FORMAT(1/3X,3HJOB,3X,20H JOB DESCRIPTION ,3X,6HNU. OF,3X,
112H SOUND LEVEL,3X,16HDAILY NOISE DOSE,/12X,4HCODE,26X,6HPERS. ,
24X,5HMEAN ,2X,5HMEAN ,3X,5HMEAN ,2X,6H R.C. ,/1
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,1HK,F4.1,2X,F5.1,3X,F5.2,3X,F6.2)
6011 FORMAT(11X,15,5X,5A4,16,   4X,1HK,F4.1,2X,1HK,F4.1,3X,F5.2,3X,F6.2
1)
6012 FORMAT(1///)
6013 FORMAT(//12X,70H*****//27X,33HTOTAL NUMBER OF PERSONNEL      *,17/
1*****//27X,34HTOTAL NUMBER OVEREXPPOSED (MEAN) = ,16/
327X,34HTOTAL NUMBER OVEREXPPOSED (H.C.) = ,16//12X,70H*****/
4*****//27X,34HTOTAL NUMBER OVEREXPPOSED (MEAN) = ,16//27X,34HTOTAL NUMBER OVEREXPPOSED (H.C.) = ,16//12X,70H*****/
6014 FORMAT(1/12X,6H&EQUIP.,3X,17H EQUIPMENT      ,3X,5HNU. OF,3X,
14HMEAN,3X,9HMEAN.,2X,5HNU.OF,2X, 8MPRIORITY,2X,5HNU.RM./
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,F6.31
6103 FORMAT(1H1////12X,9A4,15X,12H&BN JOB NO. ,16/)
400 RETURN
END

```

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```
SUBROUTINE OSHA(LCA,NTP,JBL,NPLT,I,NPLTI,MKSIC,JMAX,JA,UPTST,IK,
1 INTUT)
IMPLICIT INTEGER (I)
REAL L8I,L8IHC,LWP,LWPHC,LWPJ,LWPHCJ,LWPNC,LWPHCN,LIJ,LIJHC,KCC*c
1,JCODE2*8
COMMON/ISOKU/ ORD2(600),NPEUP(600),MULT1(600)
COMMON/COSHA/ SWH(10),SLEVHC(10), JDES(5),M(10),H(10),
1HS(10),NEXPNC, JCODE(2),LWPJ(500),LWPNC(500),NEXP,LAOU
7,KUATA(5)
COMMON/EQ1/ALEQ2(500),STDAM(500),KNAME1(500,5),JARR1(500),JSEQ1(50)
COMMON/EQ2/ALEQ3(500),STDAM(500),KNAME2(500,5),JARR3(500),JSEQ3(50
10)
COMMON/ITSDE/ITST(50),OPT(30),NTST(50)
COMMON/NM/NAME(9),JBNJNU,SNAME(50,7),NPL(50),NSIC(50)
COMMON/DD/MAC1(500),MAC2(50),MAC3(50),JCODE2(50),NSC(50)
COMMON/NCOM/NOM(10000)
COMMON/NHC/LWP(500),LWPHC(500),NT90,NH90,NT75,NH75,NTD,LSTU(500),
1KSTU(500),L8IHC(500),SUM,SUMHC,LNT90,LNT75,LNH90,LNH75,
2AL82(500),AL82HC(500),ALVP(500),ALVPHC(500),NUMP(500),JUBC(500),
JNSTO(500),HSTO(500),NJ(500),JE,DRU(500),JBDES2(50,5),RSUM,RSUML
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/ISICP/ICS(20),IPS(20,50),IND(20)
COMMON/LMIX/LMAX(150),LCD1(150,10)
COMMON/EMC/MCODE(5),MNAME(5),IDATE
COMMON/IDX2/DCD1(150,20),LCD1(150,20),LCODE(3),DEC(3),JCMK(600),
1JTC(150),JTC2(150),AINC,DY,ANTH,EOLV,NEN,NACC
DIMENSION ARED(500),JTEST(200),JARR4(500),JRNI(500),FMX(10)
```

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

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

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```
IMZ=IMZ+1
JARR4(IMZ)=JARK(IJ)
JRN(IJ)=IMZ
50 CONTINUE
NKUN=0
80 JA=0
NTTU=0
NEXP=0
NEXPHC=0
C CALCULATE AND WRITE OUT PERSONNEL EXPOSURE
100 READ(31,END=240) KCC,(JDES(J),J=1,5),(M(JJ),H(JJ),HS(JJ),JJ=1,10),
INPRS
IF(NPNS.EQ.0)GO TO 100
IF(M(1).EQ.0)GO TO 100
CTUT=0.0
SLEV=0.0
DO 130 IJ=1,10
IF(M(IJ).EQ.0)GO TO 135
SHM(IJ)=H(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 REMORMALIZE 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)+STUAM(KJ)
SHM(IJ)=H(IJ)+HS(IJ)
150 CTOT=CTOT+SHM(IJ)
160 CONTINUE
165 CONTINUE
DO 170 IJ=1,10
IF(M(IJ).EQ.0)GO TO 175
SHM(IJ)=SHM(IJ)/CTOT
170 CONTINUE
175 CONTINUE
JA=JA+1
```

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```
L81(JA)=1.E-15
L81NC(JA)=0.0
LMPHC(JA)=0.
LMP(JA)=0.
DO 230 IJ=1,10
IF(M(IJ),EQ.0)GU TU 231
KJ=NOM(M(IJ))
IF(KJ,EQ.0)GU TU 230
IF(KNAME(KJ,3),EQ.KUATA(3))GO TO 230
IF(M(IJ),EQ.1000)GO TU 230
216 CONTINUE
IF(ALEQ2(KJ),LE.ANTH)GO TO 215
F1J=FACN*H(IJ)*2.0+((ALEQ2(KJ)-ANTH)/NEN)*OPT(8)/4.0
GO TO 218
215 F1J=ALEQ2(KJ)+1.E-30
IF(SLEVHC(IJ),LE.ANTH)GU TU 220
218 CONTINUE
F1JHC=FACN*SHH(IJ)*2.0+((SLEVHC(IJ)-ANTH)/NEN)*OPT(8)/4.0
GO TO 221
220 F1JHC=0.0
221 LMP(JA)=LMP(JA)+F1J
LMPHC(JA)=LMPHC(JA)+F1JHC
230 CONTINUE
231 CONTINUE
IF(LMP(JA),GT.1.0)NEXP=NEXP+NPRS
IF(LMPHC(JA),GT.1.0)NEXPHC=NEXPHC+NPRS
IF(LMP(JA),LT.0.0001)GU TU 233
L81(JA)=3.322*ALOG10(LMP(JA))+NEN+EQLV
GU TU 235
233 L81(JA)=FLUAT(JA)/1.E+4
235 IF(LMPHC(JA),LT.0.00001)GU TU 232
L81NC(JA)=3.322*ALOG10(LMPHC(JA))+NEN+EQLV
232 CONTINUE
IF(LMP(JA),LT.0.000001)LMP(JA)=FLUAT(JA)/1.E+10
DO 238 IJ=1,5
KNAME2(JA,IJ)=JDE5(IJ)
238 CONTINUE
JSEQ3(JA)=NPRS
NTT0=NTT0+NPRS
JAKR3(JA)=IDINT(KCC-100000.0*DFLOAT(IDINT(KCC/100000.0))+0.1)
GO TO 100
240 CONTINUE
NTTT=NTT0
IF(UPT(25),NE.1)GU TU 250
DO 245 IJ=1,JA
JSEQ3(IJ)=JSEQ3(IJ)+(FLUAT(NPUP1/FLUAT(NTT0))+1.E-8)
245 CONTINUE
NEXP=NEXP+NPOP/NTTU
```

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```
NEXPHC=NEXPHC+NPOP/NTTU
NTTU=NPOP
250 CONTINUE
NRUN=NRUN+1
REWIND 31
C IF FIRST TIME THROUGH ITERATION SORT IN ORDER OF DAILY NOISE DOSE
C
C IF(NRUN.EQ.1)CALL J08ST1(LST0,JA,L31)
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
LWPNI(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),(M(IJ),H(IJ),HS(IJ),JJ=1,10),
1 NPKS
IF(NPRS.EQ.0)GO TO 310
IF(M(1).EQ.0)GO TO 310
IF(OPT(25).EQ.1)NPRS=NPKS*NPOP/NTTU
JB=JB+1
IF(LWP(JB).LE.1.00001)GO TU 310
DO 350 IJ=1,10
IF(M(IJ).EQ.0)GO TU 310
IF(M(IJ).EQ.1000)GO TO 350
KJ=NOMIN(IJ)
IF(KNAME(KJ,3).NE.KDATA(3).AND.KJ.NE.0)GO TU 320
WRITE(6,6002) M(IJ)
GO TO 350
320 CONTINUE
NPEUP(KJ)=NPEOP(KJ)+NPKS
IF(ALEQ2(KJ).LE.ANTH)GO TO 350
FIJ=FAGN*H(IJ)*2.0+((ALEQ2(KJ)-ANTH)/NEN)*OPT(8)/4.0
ALP=FIJ*NPRS/LWP(JB)
IF(KK.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 TU 326
ALX=ALP*DOD1(JLHK(KJ),J)
BUM=BUM+ALX
```

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```
KF=NOM(LCD1(JCHK(KJ),J))
NPEUP(KF)=NPEOP(KF)+NPKS
LWPJ(KF)=LWPJ(KF)+ALX
326 CONTINUE
GO TO 350
329 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)GU TU 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.0.01)GU TU 370
LWPN(IJ)=LWPJ(IJ)/BUM
370 CONTINUE
REWIND 31
IF(NRUN.GT.1)GO TO 380
KKK=KKK
JMDZ=JMZ-LKDT
CALL WRITE2(OPTST,JA,NRUN,-CA,JMAX,IK,1,NPLT,NTOT,JBL,NTIS
1,K8K,JMDZ)
380 CONTINUE
997 CONTINUE
6002 FORMAT(12X,27HNO DATA FOR EQUIPMENT CODE ,14)
RETURN
END
```

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WRITE3

JATE = 81141

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```
SUBROUTINE WRITE3(I2,KKI,NTUT,NPLT,JA,JMAX,LCA,NTKIC)
IMPLICIT INTEGER (I)
REAL L8I,L8IMC,LWPH,LWPHL,LWPHJ,LWPH2J,LWPN,LWPHCH,LIJ,LIJWC,KCC+L
1,JCUD2*8
COMMON/COSHA/ SHH(10),SLEVHC(10),
                JDES(5),ML101,M101,
LHS(10),NEXPWC,   JCUD2(2),LWPJ(500),LWPN(500),NEXP,LADU
7,KUATA(5)
COMMON/EQ1/ALEQ2(500),STOAM(500),KNAM1(500,5),JARR(500),JSEU(500)
COMMON/EQ2/ALEQ3(500),STOM3(500),KNAME2(500,5),JARK3(500),JSEQ3(500
10)
COMMON/ITSDE/ITST(50),OPT(30),NTST(50)
COMMON/NM/NAME(4),JBNJNU,SNAME(50,7),NPL(50),NS1C(50)
COMMON/NCOM/NDM(1000)
COMMON/NMC/LWP(500),LWPHC(500),NT90,NH90,NT75,NH75,NTT0,LST0(500),
1KSTU(500),L8I(500),L8IMC(500),SUM,SUMHC,LNT90,LNT75,LNH90,LNH75,
2AL82(500),ALB2HC(500),ALVP(500),ALVPHC(500),NUMP(500),JOB8C(500),
3NSTU(500),MSTO(500),NJ(500),JE,URD(500),JBUES2(50,5),RSUM,RSUMHC
COMMON/DTE/ND1(50),ND2(50),ND3(50),ND4(50),NPPP(50)
COMMON/ISICP/ICS(201),IPS(20,50),INU(20)
COMMON/IDX2/DCD1(150,20),LCU1(150,20),LCODE(3),DEC(3),JCHK(600),
1JTC(150),JTC2(150),AINC,OY,ANTH,EQLV,NEM,NACC
IF(ANTH.LE.10.0)ANTH=75.0
C
C THIS SUBROUTINE WRITES OUT NOISE REDUCTION IMPACT DATA
C
C FIRSTLY WRITE EQUIPMENT LEQ DATA
C
JMZ=JMAX-LCA
NDB=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(I2,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6036)
C NOW WRITE LIST OF DATA
N2T=0
DO 1620 IL=1,45
N2T=N2T+1
NDB=NDB+1
IF(NDB.GT.JMZ)GO TO 1625
READ(501) 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(I
1BT),REU
GO TO 1618
```

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```
1619 CONTINUE
N2T=N2T-1
1618 CONTINUE
IF(N2T.GE.NLN)GU TU 1600
1620 CONTINUE
1625 CONTINUE
NOB=NOB-1
IF(OPT(24).EQ.0)GU TO 1700
1630 WRITE(6,6035) (NAME(J),J=1,9),JBNJNU
NLM=38
WRITE(6,6052)
CALL WRITE1(I2,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6036)
N2T=0
1635 N2T=N2T+1
NOB=NOB+1
IF(NOB.GT.JMAX)GO TU 1700
READ(5U) ALQ,STQ,NBT
IF(ALQ.EQ.0.0.OR.JARR(NBT).EQ.1000)GU TU 1636
RED=ALQ-ALEQ2(NBT)
WRITE(6,6037) JARR(NBT),(KNAME(NBT,J),J=1,5),JSEQ(NBT),ALQ,ALEQ2(N
18T),RED
GO TO 1637
1638 CONTINUE
N2T=N2T-1
1637 CONTINUE
IF(N2T.GE.NLN)GO TU 1630
GU TU 1635
1700 CONTINUE
C   NUM WRITE OUT TOTAL IMPACT DATA
WRITE(6,6135) (NAME(J),J=1,9),JBNJNU
WRITE(6,6043)
WRITE(6,6038)
IF(OPT(28).EQ.0)GO TO 1715
IF(OPT(28).GE.2.AND.NTK1C.EQ.0)LU TO 1715
WRITE(6,6137) ANTH,EQLV,MEN
CALL WRITE1(I2,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6134) NTTO,NTTU,LNT75,NT75,LNH75,NH75,LNT90,NT90,LNH90,
NHW90,RSUM,SUM,RSUMNC,SUMWC
GO TO 1718
1715 CONTINUE
WRITE(6,6210)
CALL WRITE1(I2,KKI,ND1,ND2,NTOT,NPLT,NLN)
WRITE(6,6034) NTTU,NTTU,LNT75,NT75,LNH75,NH75,LNT90,NT90,LNH90,
NHW90,RSUM,SUM,RSUMNC,SUMWC
1718 CONTINUE
C
C   NUM WRITE OUT PERSONNEL IMPACT NOISE REDUCTION DATA
C
```

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```
IF(UPT(19).EQ.1)GO TO 1300
IF(UPT(20).NE.0)GU TO 1800
NBT=0
IF(UPT(21).EQ.2)GU TO 1750
1720 NZT=0
NLN=38
WRITE(6,6135)      (NAME1(J),J=1,9),JBNJNU
WRITE(6,6038)
IF(UPT(28).EQ.0)GU TO 1725
IF(UPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 1725
WRITE(6,6137) ANTH,EOLV,NEN
NLN=34
GO TO 1724
1725 CONTINUE
WRITE(6,6210)
1724 CONTINUE
CALL WRITEL1(Z,KKI,ND1,ND2,NTOT,NPLT,NLN)
IF(UPT(28).EQ.0)GU TO 1726
IF(UPT(28).GE.2.AND.NTRIC.EQ.0)GU TO 1726
WRITE(6,6140)
WRITE(6,6141)
GO TO 1727
1726 CONTINUE
WRITE(6,6040)
WRITE(6,6041)
1727 CONTINUE
IF(UPT(28).EQ.1)GU TO 1755
IF(UPT(28).GE.2.AND.NTRIC.NE.0)GU TO 1755
DO 1730 IL=1,45
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JA)GU TO 1750
READ(50) ALB,ALBH,ALP,ALC,NQB
LH=INT(LHP(MUE))
LC=INT(LPHC(MUB))
LAP=INT(ALP)
LAC=INT(ALC)
KM=LAP-LH
KHC=LAG-LC
WRITE(6,6042) JARR3(NQB      ),(KNAME2(NQB      +3),J=1,5),
1JSEQ3(NQB      ),LAP,LAC,LH,LC,KM,KHC
IF(NZT.GE.NLN)GU TO 1720
1730 CONTINUE
1755 CONTINUE
DO 1735 IL=1,45
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JA)GU TO 1750
```

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```
READ(501,AL8H,AMP,AWC,NUB
AH=LWP(NUB)
AC=LMPHC(NUB)
RH=AMP-AW
RC=AWC-AC
WRITE(6,6142) JARR3(NUB      ),LNAME2(NUB      ,J),J=1,5),
IJSEQ3(NUB      ),AMP,AMH,AH,AC,RH,<C
IF(NZT.GE.NLN) GO TO 1720
1735 CONTINUE
1750 CONTINUE
IF(UPT(21).EQ.1)GO TO 1790
NBT=0
1760 NLN=38
NZT=0
WRITE(6,6135)  (NAME(J),J=1,9),JBNJNU
WRITE(6,6038)
IF(UPT(28).EQ.0)GO TO 1758
IF(UPT(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,NUL,NU2,NTOT,NPLT,NLN)
WRITE(6,6039)
WRITE(6,6141)
1765 CONTINUE
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JA)GO TO 1790
READ(501) AL8,ALDH,AMP,AWC,NUB
AKP=AL8-L8I(NUB)
AKC=AL8H-L8IHC(NUB)
IF(L8I(NUB).LT.ANT)AKP=AL8-ANTH
IF(L8IHC(NUB).LT.ANT)AKC=AL8H-ANTH
IF(AKP.LT.0.OIAKP=0.0
IF(AKC.LT.0.OIAKC=0.0
IF(AL8.LT.ANTH.AND.AL8H.LT.ANTH)GO TO 1770
IF(AL8.LT.ANTH)GO TO 1775
IF(L8I(NUB).LT.ANTH.AND.L8IHC(NUB).LT.ANTH)GO TO 1780
IF(L8I(NUB).LT.ANTH)GO TO 1785
WRITE(6,6044) JARR3(NUB      ),LNAME2(NUB      ,J),J=1,5),
IJSEQ3(NUB      ),AL8,ALDH,L8I(NUB      ),L8IHC(NUB      ),AKP,AKC
GO TO 1795
1770 WRITE(6,6101) JARR3(NUB      ),LNAME2(NUB      ,J),J=1,5),
IJSEQ3(NUB      ),ANTH,ANTH,ANTH,ANTH,AKP,AKC
GO TO 1795
```

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 1775 WRITE(6,6102) JARR3(NOB 1,(KNAME2(NUB ,J),J=1,5),
 LJSEW3(NUB),ANTH,AL8H,ANTH,L81HC(NUB),AKP,AKC
 GO TO 1795
 1780 WRITE(6,6103) JARR3(NOB 1,(KNAME2(NUB ,J),J=1,5),
 LJSE03(NUB),AL8,AL8H,ANTH,ANTH,AKP,AKL
 GO TO 1795
 1785 WRITE(6,6104) JARR3(NOB 1,(KNAME2(NUB ,J),J=1,5),
 LJSEW3(NUB),AL8,AL8H,ANTH,L81HC(NUB),AKP,AKC
 1795 CUNTINUE
 IF(NZT.GE.NLN)GU TO 1760
 IF(NZT.EQ.45)STOP 23
 GO TO 1765
 1790 CUNTINUE
 NBT=0
 IF(UPT(21).EQ.2)GO TO 2750
 2720 NZT=0
 NLN=38
 WRITE(6,6135) (NAME(J),J=1,4),JBNJNU
 WRITE(6,6138)
 IF(UPT(28).EQ.0)GO TO 2725
 IF(UPT(28).GE.2.AND.NTRIC.EQ.0)GO TO 2725
 NLN=34
 WRITE(6,6137) ANTH,EQLV,NEN
 GO TO 2726
 2725 CUNTINUE
 WRITE(6,6210)
 2726 CUNTINUE
 CALL WRITE1(IZ,KKI,ND1,NU2,NTOT,NPLT,MLN)
 IF(UPT(28).EQ.1)GU TO 2727
 IF(UPT(28).GE.2.AND.NTRIC.NE.0)GU TO 2727
 WRITE(6,6040)
 WRITE(6,6041)
 GU TO 2728
 2727 CUNTINUE
 WRITE(6,6140)
 WRITE(6,6141)
 2728 CUNTINUE
 IF(UPT(28).EQ.1)GU TO 2755
 IF(UPT(28).GE.2.AND.NTRIC.NE.0)GU TO 2755
 DO 2730 IL=1,45
 NZT=NZT+1
 NBT=NBT+1
 IF(NBT.GT.JE)GU TO 2750
 READ(50) AL8,AL8H,ANP,ANC,NUB
 LH=INT(ALVP(NUB))
 LC=INT(ALVPHC(NUB))
 LAP=INT(ANP)
 LAC=INT(ANC)

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```
KM=LAP-LW
KHC=LAC-LC
WRITE(6,6042) 10BC1N0B 1,(KNAME2INJIN0B 1,JI,J=1,5),
1 NUMP(N0B 1,LAP,LAC,LW,LC,KM,KHC
IF(NZT.GE.NLN)GU TU 2720
2730 CONTINUE
2755 CONTINUE
DU 2735 IL=1,40
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JE)GO TO 2750
READ(50) AL8,AL8H,AKP,AKC,NUB
AK=ALVPHC(N0B)
AC=ALVPHC(N0B)
RH=AKP-AH
RC=AKC-AC
WRITE(6,6142) 10BC1N0B 1,(KNAME2INJIN0B 1,JI,J=1,5),
1 NUMP(N0B 1,AKP,AKC,AN,AC,RH,RC
IF(NZT.GE.NLN)GU TU 2720
2735 CONTINUE
2750 CONTINUE
IF(UPT(21).EQ.1)GU TO 2790
NBT=0
2760 NLN=38
NZT=0
WRITE(6,6135) (NAME1J1,J=1,4),JBNJNU
IF(UPT(28).EQ.0)GU TU 2758
IF(UPT(28).GE.2.AND.NTRIC.EQ.0)GU TU 2758
NLN=34
WRITE(6,6137) ANTH,EQLV,NEV
GU TU 2759
2758 CONTINUE
WRITE(6,6210)
2759 CONTINUE
WRITE(6,6138)
CALL WR1TE1((Z,KKI,N01,N02,NTOT,NPLT,NLN)
WR1TE(6,6039)
WR1TE(6,6141)
2765 CONTINUE
NZT=NZT+1
NBT=NBT+1
IF(NBT.GT.JE)GO TO 2790
READ(50) AL8,AL8H,AKP,AKPC,N0B
AKP=AL8-AL92(N0B)
AKC=AL8H-AL02HC(N0B)
IF(AL82(N0B).LT.ANTH)AKP=AL8-ANTH
IF(AL82HC(N0B).LT.ANTH)AKC=AL8H-ANTH
IF(AKP.LT.0.0)AKP=0.0
```

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IF(AKC.LT.0.0)AKC=0.0
IF(AL8.LT.ANTH.AND.AL8H.LT.ANTH)GO TO 2770
IF(AL8.LT.ANTH)GO TU 2775
IF(AL82(NOB) .LT.ANTH.AND.AL82HC(NUB) .LT.ANTH)GO TO
12780
IF(AL82(NOB) .LT.ANTH)GO TU 2785
WRITE(6,6044) JUBC(NUB) 1,(KNAME2(NJ(NUB) 1,J1,J=1,5),
1,NUMP(NUB) 1,AL8,AL8H,AL82(NUB) 1,AL82HC(NUB) 1,AKP,
2,AKC
GU TO 2795
2770 WRITE(6,6101) JUBC(NUB) 1,(KNAME2(NJ(NUB) 1,J1,J=1,5),
1,NUMP(NUB),ANTH,ANTH,ANTH,ANTH,AKP,AKC
GU TO 2795
2775 WRITE(6,6102) JUBC(NUB) 1,(KNAME2(NJ(NUB) 1,J1,J=1,5),
1,NUMP(NUB) 1,ANTH,AL8H,ANTH,AL82HC(NUB),AKP,AKC
GU TO 2795
2780 WRITE(6,6103) JUBC(NUB) 1,(KNAME2(NJ(NUB) 1,J1,J=1,5),
1,NUMP(NUB) 1,AL8,AL8H,ANTH,ANTH,AKP,AKC
GU TO 2795
2785 WRITE(6,6104) JUBC(NUB) 1,(KNAME2(NJ(NUB) 1,J1,J=1,5),
1,NUMP(NUB) 1,AL8,AL8H,ANTH,AL82HC(NUB) 1,AKP,AKC
2795 CONTINUE
IF(NZT.GE.NLN1)GO TU 2780
IF(NZT.EQ.45)STOP 23
GU TO 2765
2790 CONTINUE
1800 CONTINUE
6034 FORMAT(//12X,70H*****BEFORE CHANGE AFTER CHANGE//,
1*****BEFORE CHANGE AFTER CHANGE//,
212X,22HTOTAL NO. OF PERSONNEL,22X,16,12X,16/12X,36HTOTAL NO OF PERS
3S. WITH LEQ>75 (MEAN), 8X,16,12X,16/12X,36HTOTAL NO OF PERS.
4WITH LEQ>75 (W.C.), 8X,16,12X,16/12X,36HTOTAL NO OF PERS. WITH LEQ>
590 (MEAN), 8X,16,12X,16/12X,36HTOTAL NO OF PERS. WITH LEQ>90 (W
6.C.), 8X,16,12X,16/12X,32HLEVEL WEIGHTED POPULATION (MEAN),
611X,F9.1,10X,F9.1/12X,32HLEVEL WEIGHTED POPULATION (W.C.),11X,
7F9.1,10X,F9.1/
812X,70H*****BEFORE CHANGE AFTER CHANGE//,
9*****BEFORE CHANGE AFTER CHANGE//,
1)
6035 FORMAT(1H1 ///////////////////////////////////////////////////////////////////12X,9A4,17X,12M8DN JOB NU. ,10///29X,33HEFFECT D
1F EQUIPMENT NOISE CONTROL//)
6036 FORMAT(1/12X,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,I4,7X,5A4,4X,I5,4X,F2.1,3X,F2.1,7X,F4.1)
6038 FORMAT(1/23X,45HEFFECT OF NOISE CONTROL ON PERSONNEL EXPOSURE//)
6039 FORMAT(1/50X,33H----- SOUND LEVEL -----)
6040 FORMAT(1/50X,33H--- LEVEL WEIGHTED POPULATION ---)
6041 FORMAT(12X,4H JOB,2X,20H JOB DESCRIPTION ,2X,5HNU.OF, 5X,6HBEFU
```

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1RE,8X,5HAFTER,9X,6HCHANGE/12X,4HCUDE,24X,5HPERS.,2X,4HMEAN,3X,
14HM.C.,3X,4HMEAN,3X,4HM.C.,3X,4HMEAN,3X,4HM.C./
6042 FORMAT(11X,15,2X,5A4,I6,417,1X,16,1X,I6)
6043 FORMAT(//)
6044 FORMAT(11X,15,2X,5A4,I6,2(2X,F5.1),2X,F5.1,1X,F5.1)
6051 FORMAT(//22X,50HACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ))
11
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******/>1X,30HBEFORE CHANGE AFTER CHANGE//
1******/>1X,30HTOTAL NUMBER OF PERSONNEL = ,6X,I6,1IX,I6/
315X,34HTOTAL NUMBER OVEREXPOSED (MEAN) = ,6X,I6,1IX,I6/
415X,34HTOTAL NUMBER OVEREXPOSED (W.C.) = ,6X,I6,1IX,I6//
512X,70H******/>1X,30H******/>1X,30H******/>1X,30H******/>1X,30H******/>
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 = ,12,4H DBA//
6138 FORMAT(//19X,54HEFFECT OF NOISE CONTROL ON PERSONNEL EXPOSURE AVERA
GES//
6140 FORMAT(/50X,33H----- DAILY NOISE DOSE -----)
6141 FORMAT(12X,4H JOB,2X,20H JOB DESCRIPTION ,2X,5HNU.OF, 5X,6HDEFO
1RE,8X,5HAFTER,8X,6HCHANGE/12X,4HCUDE,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(23X,44HPERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES//
6210 FORMAT(40X,12HHEPA CRITERIA//
RETURN
END

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	PLAYER SUPERVISOR
24107	POND SURFER
24108	LOG SURFER
24111	LOG CARRIER OPERATOR
24114	DEBARKER OPERATOR
24117	DECK SCALER
24120	LUT-UFF 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	RESAM OPERATOR
24143	UNSCRAMBLE OPERATOR
24144	LUMBER DIVERTER
24145	GREEN CHAIN OPERATOR
24148	TRIMMER OPERATOR
24151	GREEN CHAIN PULLER
24154	STALKER-GREEN
24155	STICKERMAN-GREEN
24156	UNIPAC OPERATOR
24159	TRANSFER OPERATOR
24160	KILN OPERATOR
24161	UNSTACKER-DRY
24162	UNSTACKER PULLER
24163	GRAJERS/SURTING CHAIN
24167	PLANER OPERATOR
24168	PLANER SET-UP MAN
24173	GRAUER/PLANER MILL
24176	DRY CHAIN PULLER
24174	BANGER OPERATOR
24181	CHECKERS
24182	TALLYMEN
24185	RIPSAW OPERATOR
24186	RIPSAW UFFBEARER
24191	SPECIALTY RESAM UFFS

Table C-1. LIST OF JOBS

JOB CODE	JOB DESCRIPTION
24190	SPECIALTY RESAW OPER
24190	ROUNDER FEEDER
24197	ROUNDER OFFSEAKER
24201	LUMBER CARRIER OPER
24202	FORKLIFT OPERATOR
24207	RAILCAR LOADER
24211	MILLWRIGHT/GENERAL
24212	MILLWRIGHT/SAHMILL
24213	MILLWRIGHT/PLANER
24216	SHUTTLEMAN/GENERAL
24217	WELDER
24219	MACHINISTS
24223	MECHANICS
24226	ELECTRICIANS
24233	CARPENTERS
24238	PIPE-FITTERS
24244	FILERS
24245	WILKIN
24248	PINEHOUSE OPERATOR
24261	CLEAN-UP MAN/REGULAR
24262	CLEAN-UP MAN/DOWN TIME
24265	LABRER
24260	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	IDLE/ENCLOSED
1646	RESAW-LARGE	MANUAL/PINCH KILL	OPERATING/ENCL
1647	RESAW-LARGE	MANUAL/PINCH KILL	IDLE
1648	RESAW-LARGE	MANUAL/PINCH KILL	OPERATING
1649	RESAW-LARGE	MANUAL/PINCH KILL	IDLE/ENCLOSED
1650	RESAW-LARGE	MANUAL/LINE BAR	OPERATING/ENCL
1651	RESAW-LARGE	MANUAL/LINE BAR	IDLE/ENCLOSED
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	SAWMILL
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 BAR	OPERATING
1679	GREEN CHAIN CONVY	GENERAL	GENERAL
1680	BACK/GREEN CHAIN	GREEN CHAIN	PULLER
1681	GREEN CHAIN CONVY	MANUAL	PULLER
1682	GREEN CHAIN CONVY	AUTOMATIC	LUMBER DIVERTER
1683	GREEN CHAIN CONVY	AUTOMATIC	GENERAL
1685	KILN	GENERAL	OPERATING
1686	BACK/KILN CONTROL RA	KILN CONTROL ROOM	STACER
1687	KILN	AUTOMATIC	STICKERMAN
1689	BACK/KILN CHAIN	KILN CHAIN CONVY	UNSTACKER
1690	KILN CHAIN CONVYR	GREEN	PULLER
1691	KILN CHAIN CONVYR	GREEN	
1692	KILN CHAIN CONVYR	DRY	
1693	KILN CHAIN CONVYR	DRY	

ENVIRONMENTAL PROTECTION AGENCY

SBN JOB NO. 4937

Table C-2. LIST OF EQUIPMENT

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1000	BACKGRUND	NOISE RELIEF TOOLS	GENERAL
1513	WHEEL GRINDER	MANUAL/CLEAN	GENERAL
1600	DEBARKER	GENERAL	GENERAL
1601	BACK/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 SAW	GENERAL	GENERAL
1611	BACK/CUT-OFF	CUT-OFF SAW	
1612	CUT-OFF SAW	CIRCULAR	IDLE/ENCLOSED
1613	CUT-OFF SAW	CIRCULAR	OPERATING/ENCL
1614	CUT-OFF SAW	CIRCULAR	IDLE
1615	CUT-OFF SAW	CIRCULAR	OPERATING
1616	CUT-OFF SAW	CHAIN	IDLE/ENCLOSED
1617	CUT-OFF SAW	CHAIN	OPERATING/ENCL
1618	CUT-OFF SAW	CHAIN	IDLE
1619	CUT-OFF SAW	CHAIN	OPERATING
1620	HEAJIG	GENERAL	GENERAL
1621	BACK/HEADRIG	HEADRIG	
1622	HEAJIG	BANDSAW/SAWYER	IDLE/ENCLOSED
1623	HEAJIG	BANDSAW/SAWYER	OPERATING/ENCL
1624	HEADRIG	BANDSAW/SAWYER	IDLE
1625	HEAJIG	BANDSAW/SAWYER	OPERATING
1626	HEADRIG	BANDSAW/TAIL	IDLE
1627	HEAJIG	BANDSAW/TAIL	OPERATING
1629	EDGER	GENERAL	GENERAL
1630	BACK/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	STACKER
1695	KILN CHAIN CONVYR	DRY CHAIN	TALLYMAN
1696	KILN CHAIN CONVYR	DRY CHAIN	SORTING GRADER
1699	PLANER	GENERAL	GENERAL
1700	BACK/PLANER	PLANER	GRAVER 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	PLAYER	AUTOMATIC/INFEED	IDLE
1713	PLANER	AUTOMATIC/INFEED	OPERATING
1715	PLAYER/ENCL	AUTOMATIC/GRAVERS	IDLE
1716	PLANER/ENCL	AUTOMATIC/GRAVERS	OPERATING
1717	PLANER	AUTOMATIC/GRAVERS	IDLE
1718	PLANER	AUTOMATIC/GRAVERS	OPERATING
1724	MOULDER	GENERAL	GENERAL
1725	BACK/MOULDER	MOULDER	
1726	MOULDER/ENCL	AUTO/INFEED/INFEED	IDLE
1727	MOULDER/ENCL	AUTO/INFEED/INFEED	OPERATING
1728	MOULDER	AUTO/INFEED/INFEED	IDLE
1729	MOULDER	AUTO/INFEED/INFEED	OPERATING
1730	MOULDER/ENCL	AUTO/INFEED/OUTFEED	IDLE
1731	MOULDER/ENCL	AUTO/INFEED/OUTFEED	OPERATING
1732	MOULDER	AUTO/INFEED/OUTFEED	IDLE
1733	MOULDER	AUTO/INFEED/OUTFEED	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 SANDER	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 RESAM	SPECIALTY RESAM	PLANK MILL
1761	RESAM-SPEC/ENCL	SINGLE BAND/INFL	IDLE
1762	RESAM-SPEC/ENCL	SINGLE BAND/INFL	OPERATING
1763	RESAM-SPECIALTY	SINGLE BAND/INFL	IDLE
1764	RESAM-SPECIALTY	SINGLE BAND/INFL	OPERATING
1765	RESAM-SPEC/ENCL	SINGLE BAND/OUTFL	IDLE
1766	RESAM-SPEC/ENCL	SINGLE BAND/OUTFL	OPERATING
1767	RESAM-SPECIALTY	SINGLE BAND/OUTFL	IDLE
1768	RESAM-SPECIALTY	SINGLE BAND/OUTFL	OPERATING
1773	CONVEYOR	GENERAL	GENERAL
1777	BACK/CONVEYOR/GEN	GENERAL	GENERAL
1779	CHIPPER	CHIPPER	GENERAL
1780	BACK/CHIPPER	INFEED	IDLE
1781	CHIPPER/ENCL	INFEED	OPERATING
1782	CHIPPER/ENCL	INFEED	OPERATING
1783	CHIPPER	INFEED	IDLE
1784	CHIPPER	INFEED	OPERATING
1785	HOG	GENERAL	GENERAL
1786	BACK/HOG	INFEED	IDLE
1787	HOG/ENCL	INFEED	OPERATING
1788	HOG/ENCL	INFEED	IDLE
1789	HOG	INFEED	OPERATING
1790	HOG	INFEED	IDLE
1793	BACK/POWERHJUSE	POWERHJUSE	GENERAL
1794	POWERHJUSE	BILLETS	GENERAL
1796	POWERHJUSE	GENERATORS	GENERAL
1798	SAWMIL.. OFFICE	FIREMAN/SUPERVISOR	GENERAL
1799	BACK/OFFICE/SAWMIL	SAWMILL OFFICE	GENERAL
1800	FORKLIFT	GENERAL	GENERAL
1801	BACK/FORKLIFT	ENCLOSED	GENERAL
1802	FORKLIFT	950 CARRIER	GENERAL
1808	LOG CARRIER	950 CARRIER	GENERAL
1809	BACK/LOG CARRIER	STRADULE	GENERAL
1810	LUMBER CARRIER	STRADDLE CARRIER	GENERAL
1811	BACK/LUMBER CARRY	STRADDLE CARRIER	GENERAL
1814	BACK/TRANSFER RM	TRANSFER ROOM	GENERAL
1815	TRANSFER CARRIER	RAIL	GENERAL
1816	TRANSFER CARRIER	RAIL	IDLE
1819	QUADSAM	GENERAL	GENERAL
1820	BACK/JIAC SAM	QUADSAM	GENERAL

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 4552

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

EQUIP. CODE	GENERIC NAME	TYPE	SIZE/CONDITION
1821	QUAJSAM	AUTO/OPERATOR	IDLE/ENCLOSED
1822	QUAJSAM	AUTO/OPERATOR	OPERATING/ENCL
1823	QUAUSAM	AUTO/TAIL	IDLE
1824	QUAUSAM	AUTO/TAIL	OPERATING
1829	BACK/GANG SAW	GANG SAW	
1830	GANG SAW	AUTO/INFEED/OPER	IDLE/ENCLOSED
1831	GANG SAW	AUTO/INFEED/OPER	OPERATING/ENCL
1848	RIPSAW-SPECIALTY	GENERAL	GENERAL
1849	BACK/SPEC RIPSAW	RIPSAW	
1850	RIPSAW-SPECIALTY	MANUAL/INFEED	IDLE
1851	RIPSAW-SPECIALTY	MANUAL/INFEED	OPERATING
1852	RIPSAW-SPECIALTY	MANUAL/UFFBEARER	IDLE
1853	RIPSAW-SPECIALTY	MANUAL/UFFBEARER	OPERATING
1868	STORAGE	GENERAL	GENERAL
1869	BACK/STORAGE	SIXFACE STORAG.	
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/CARPENTER 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 SHP	GARAGE

PLANT NO. 1

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9035

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1405

EQUIP. CODE	GENERAL NAME	LCW JDA
1810	LUMBER CARRIER	04.0
1810	LUMBER CARRIER	06.0
1810	LUMBER CARRIER	06.0
1808	LOG CARRIER	70.0
1802	FORKLIFT	00.0
1798	SAWMILL OFFICE	70.0
1796	POWERHOUSE	02.0
1794	POWERHOUSE	04.0
1789	HUG	72.0
1784	CHIPPER	100.0
1784	CHIPPER	100.0
1783	CHIPPER	90.0
1783	CHIPPER	72.0
1770	CONVEYOR	08.0
1766	RESAH-SPEC/ENCL	04.0
1766	RESAH-SPEC/ENCL	91.0
1764	RESAH-SPECIALTY	04.0
1762	RESAH-SPEC/ENCL	90.0
1762	RESAH-SPEC/ENCL	00.0
1752	STACK BANDER	02.0
1751	STACK BANDER	70.0
1747	RAILCAR LOADER	70.0
1747	RAILCAR LOADER	70.0
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	MULDER	105.0
1731	MULDER/ENCL	04.0
1727	MULDER/ENCL	08.0
1726	MULDER/ENCL	70.0
1716	PLANER/ENCL	08.0
1716	PLANER/ENCL	94.0
1711	PLANER/ENCL	91.0
1711	PLANER/ENCL	95.0
1702	PLANER	110.0
1702	PLANER	108.0
1702	PLANER	110.0
1694	KILN CHAIN CONVYR	02.0

ENVIRONMENTAL PROTECTION AGENCY

SDM JLB NO. 403

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1400

EQUIP. CODE	GENERIC NAME	LEW JPA
1691	KILN CHAIN CONVYR	1200
1692	KILN CHAIN CONVYR	0800
1691	KILN CHAIN CONVYR	0000
1690	KILN CHAIN CONVYR	0000
1682	GREEN CHAIN CONVY	0500
1684	GREEN CHAIN CONVY	0300
1674	TRIMMER	9500
1672	TRIMMER	9100
1672	TRIMMER	5000
1672	TRIMMER	0000
1670	TRIMMER	0100
1670	TRIMMER	0300
1669	TRIMMER	7100
1647	RESAM-LARGE	7300
1646	RESAM-LARGE	0800
1630	EDGER	40000
1630	EDGER	9900
1635	EDGER	9400
1635	EDGER	9200
1627	HEADRIG	9600
1620	HEADRIG	9000
1623	HEADRIG	0000
1622	HEADRIG	0300
1613	CUT-OFF SAM	9400
1613	CUT-OFF SAM	10200
1612	CUT-OFF SAM	0700
1607	DEBARKER	7200
1606	DEBARKER	0500

ENVIRONMENTAL PROTECTION AGENCY

DON JUR NO. 4022

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 1

DATE: 1964

SIC CODE	GENERAL NAME	LEG DIA	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR. CODE CONTR.	CODE CONTR.	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/BASERÉT	64.0	1630 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	1779 0.10	0 0.0
1760	BACK/SPEL KESAM	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/MULDEK	92.0	1735 0.40	1727 0.10	1731 0.10
1700	BACK/PLANER	44.0	1702 0.60	1711 0.10	1710 0.10
1689	BACK/KILN CHAIN	80.0	1640 0.40	1641 0.30	1602 0.30
1660	BACK/GREEN CHAIN	81.0	1682 0.00	1690 0.30	1641 0.10
1665	BACK/TRIMMER	82.0	1670 0.00	1682 0.20	0 0.0
1665	BACK/TRIMMER	90.0	1647 0.20	1672 0.60	0 0.0
1630	BACK/EDGER	92.0	1630 0.00	1623 0.40	0 0.0
1621	BACK/MEAURIU	65.0	1700 0.20	1623 0.80	0 0.0
1621	BACK/MEAURIU	45.0	1780 0.30	1623 0.50	1644 0.20

ENVIRONMENTAL PROTECTION AGENCY

DSN JUN NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242	PLANT NO. = 1	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
1630	EDGER	2	94.0	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	2.03
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	2.03
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	2.03
1612	CUT-OFF SAW	1	87.0	0.0
1623	HEADRIG	1	86.0	0.0
1665	BACK/TRIMMER	2	86.0	5.00
1690	KILN CHAIN CONVYR	1	86.0	0.0
1691	KILN CHAIN CONVYR	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 CUNTR.	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

BON JUB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

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

EQUIP. CODE	GENERAL NAME	NO. OF SAMPLES	MEAN LEQ(LEQA)	STD. DEV.
1694	KILN CHAIN CONVYR	1	82.0	0.0
1752	STACK BANDER	1	82.0	0.0
1796	PUMPERHOUSE	1	84.0	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	FURKLIFT	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

BON JUB NU. 4635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

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

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1699	PLANER	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	HUG	1	92.0	7.07
1644	RESAW/LARGE	2	90.5	0.0
1808	LUG CARRIER	1	90.0	0.0
1724	MULDER	4	90.0	0.0
1620	HEADRIG	4	89.3	0.0
1759	RESAW/SPECIALTY	5	89.0	2.24
1776	CONVEYOR/GEN	1	88.0	0.0
1810	LUMBER CARRIER	3	88.0	2.00
1664	TRIMMER	7	87.0	2.21
1679	GREEN CHAIN	2	84.0	1.41
1792	POWERHOUSE	2	83.0	0.0
1686	KILN CHAIN	5	82.8	0.0
1739	DRY CHAIN	4	82.5	3.0
1800	FORKLIFT	1	80.0	0.0
1749	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	68.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

OPEN JOB NO. 40050

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	244	PLANT NO:	1	DATE: 1980				
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE TIME	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	60.0
248	PUMPER/HOUSE OPERATOR	12	1794	50.0	1796	50.0	0	0.0
244	FILERS	0	1800	100.0	0	0.0	0	0.0
238	PIPE-FITTERS	2	1800	50.0	1776	15.0	1821	15.0
			1830	10.0	1700	10.0	0	0.0
233	CARPENTERS	4	1800	50.0	1776	15.0	1821	15.0
			1830	10.0	1700	10.0	0	0.0
228	ELECTRICIANS	2	1877	25.0	1776	50.0	1821	10.0
			1830	5.0	1700	10.0	0	0.0
223	MECHANICS	3	1800	100.0	0	0.0	0	0.0
219	MACHINISTS	3	1800	100.0	0	0.0	0	0.0
213	MILLWRIGHT/PLANER	3	1800	50.0	1702	10.0	1821	10.0
			1740	30.0	0	0.0	0	0.0
211	MILLWRIGHT/GENERAL	4	1821	85.0	1800	15.0	0	0.0
207	RAILCAR LOADER	9	1747	100.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	11	1800	100.0	0	0.0	0	0.0
201	LUMBER CARRIER OPER	0	1810	100.0	0	0.0	0	0.0
197	MOULDER DROPSHAKER	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 DROPS	2	1766	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SERIAL JOB NO. 9037

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242 PLANT NO: 1 DATE: 1460

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	TIME CODE	TIME CODE	TIME
190	SPECIALTY RESIN 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	GRAUER/PLANER MILL	19	1716 70.0	1700 30.0	0	0.0
168	PLANER SET-UP MAN	4	1702 12.0	1711 44.0	1716 44.0	
167	PLANER OPERATOR	8	1711 70.0	1700 30.0	0	0.0
162	UNSTACKER FULLER	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	STICKERMAN-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	1662 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	1662 100.0	0	0.0	0 0.0
140	RESIN OPERATOR	2	1640 35.0	1647 65.0	0	0.0
137	CHIPPER OPERATOR	2	1764 60.0	1783 10.0	1621 30.0	

ENVIRONMENTAL PROTECTION AGENCY

EDN JOB NO. 9030

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODES: 246

PLANT NO: 1

DATE: 1980

JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE TIME	CODE TIME	CODE TIME	CODE TIME	CODE TIME
134	EDGER OPERATOR	4	1035 50.0	1036 50.0	0	0.0		
127	TAIL SAWYER	4	1020 20.0	1027 80.0	0	0.0		
123	SAWYER	4	1022 20.0	1023 80.0	0	0.0		
117	DECK SCALER	2	1013 5.0	1021 95.0	0	0.0		
114	DEBARKER OPERATOR	2	1006 40.0	1007 60.0	0	0.0		
111	LOG CARRIER OPER	1	1008 50.0	1009 50.0	0	0.0		
108	LOG SORTER	2	1000 100.0	0	0.0	0	0.0	
107	PUND SORTER	4	1000 100.0	0	0.0	0	0.0	
104	PLANER SUPERVISOR	4	1000 50.0	1700 50.0	0	0.0		
101	SAWMILL SUPERVISOR	3	1798 50.0 1030 15.0	1776 20.0 0 0.0	1021 15.0 0 0.0	0	0.0	

ENVIRONMENTAL PROTECTION AGENCY

DEN JOB NL. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242	PLANT NO. = 1	NO. DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. OF MEAN TIME-BHRS	NO. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	3	1770	8.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1784 1783 1770	1.0 1.0 4.0	0.0 0.0 0.0
24800	PUMERHOUSE OPERATOR	14	1794 1790	4.0 4.0	0.0 0.0
24400	FILEKS	6	1000	8.0	0.0
23800	PIPE-FITTERS	2	1000 1770 1621 1630 1740	4.0 1.2 1.2 0.8 0.0	0.0 0.0 0.0 0.0 0.0
23300	CARPENTERS	4	1000 1770 1621 1630 1700	4.0 1.2 1.2 0.0 0.0	0.0 0.0 0.0 0.0 0.0
22800	ELECTRICIANS	5	1677 1776 1641 1630 1700	2.0 4.0 0.8 0.4 0.0	0.0 0.0 0.0 0.0 0.0
22300	MECHANICS	3	1000	8.0	0.0
21900	MACHINISTS	3	1000	8.0	0.0
21300	MILLWRIGHT/PLANER	3	1000 1702 1621 1740	4.0 0.8 0.8 2.4	0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

OSH JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 2	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WORK MEAN TIME-HRS	WORK STD. DEVIATION
21100	MILLER/GENERAL	4	1621 1000	8.0 10.2	0.0
20700	RAILCAR LOADER	9	1747	8.0	0.0
20200	FORKLIFT OPERATOR	11	1800	8.0	0.0
20100	LUMBER CARRIER OPER	8	1810	8.0	0.0
19700	MOULDER/OFFSEAKER	2	1731	8.0	0.0
19600	MOULDER FEEDER	2	1727 1740	8.4 8.6	0.0
19100	SPECIALTY RESAW OPER	2	1760	8.0	0.0
19000	SPECIALTY RESAW OPER	2	1764	8.0	0.0
18100	CHECKERS	6	1740	8.0	0.0
17900	BANDER OPERATOR	3	1751 1754	4.0 4.0	0.0
17600	DRY CHAIN FULLER	20	1741	8.0	0.0
17300	GRADER/PLANER MILL	16	1710 1700	9.6 8.4	0.0
16800	PLANER SET-UP MAN	2	1702 1711 1716	1.0 3.0 3.0	0.0
16700	PLANER OPERATOR	8	1711 1700	5.6 6.4	0.0

ENVIRONMENTAL PROTECTION AGENCY

SIC JDS NO. - 4632

PERSONNEL HOURS ASSIGNMENT AVERAGES

SIC CODE = 242	PLANT NO. = 2	NO. DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	HRS. MEAN TIME-HRS	HRS. STD. DEVIATION
16200	UNSTACKER PULLER	2	1643	0.0	0.0
16100	UNSTACKER-DAY	2	1642	0.0	0.0
16000	KILN OPERATOR	3	1600	0.0	0.0
19600	UNIPAC OPERATOR	2	1644	0.0	0.0
15500	STICKERMAN-GREEN	2	1641	0.0	0.0
15400	STACKER-GREEN	4	1670	0.0	0.0
19100	GREEN CHAIN PULLER	2	1682	0.0	0.0
14801	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	1640 1647	2.8 2.2	0.0 0.0
13700	CHIPPER OPERATOR	4	1704 1703 1621	4.8 0.8 2.4	0.0 0.0 0.0
13400	EDGER OPERATOR	4	1632 1636	4.0 4.0	0.0 0.0
12700	TAIL SAWER	4	1620 1627	1.6 0.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 7637

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-SHRS	MEAN STD. DEVIATION	
12300	SAWYER	4	1622 1623	1.6 6.4	0.0 0.0	
11700	DECK SCALEK	2	1613 1621	0.4 7.6	0.0 0.0	
11400	DEBARKEE OPERATOR	2	1600 1607	2.4 4.8	0.0 0.0	
11100	LUG CARRIER OPER	1	1800 1800	4.0 4.0	0.0 0.0	
10600	LUG SURTER	2	1000	6.0	0.0	
10700	PUND SURTER	4	1000	6.0	0.0	
10400	PLANER SUPERVISOR	4	1000 1700	4.0 4.0	0.0 0.0	
10100	SAMMILL SUPERVISOR	3	1790 1770 1621 1630	4.0 1.0 1.2 1.2	0.0 0.0 0.0 0.0	

PLANT NO. 2

ENVIRONMENTAL PROTECTION AGENCY

DOE JUD NO. 905

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 2

DATE: 1966

EQUIP. CODE	GENERIC NAME	LEO LCA
1853	RIPSAH-SPECIALTY	52.0
1852	RIPSAH-SPECIALTY	62.0
1851	RIPSAH-SPECIALTY	74.0
1850	RIPSAH-SPECIALTY	64.0
1831	GANU SAM	17.0
1830	GANU SAM	17.0
1824	QUADSAM	77.0
1823	QUADSAM	75.0
1822	QUADSAM	40.0
1819	TRANSFER CARRIER	80.0
1810	LUMBER CARRIER	64.0
1810	LUMBER CARRIER	32.0
1802	FURALIFT	40.0
1790	PARKHOUSE	40.0
1784	CHIPPER	104.0
1784	CHIPPER	100.0
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	65.0
1751	STALK BANDER	78.0
1747	RAILCAR LOADER	65.0
1741	DRY CHAIN CONVEYR	63.0
1741	DRY CHAIN CONVEYR	65.0
1741	DRY CHAIN CONVEYR	67.0
1739	MOULDER	102.0
1734	MOULDER	45.0
1731	MOULDER/ENCL	70.0
1731	MOULDER/ENCL	77.0
1727	MOULDER/ENCL	61.0
1720	MOULDER/ENCL	75.0

ENVIRONMENTAL PROTECTION AGENCY

SDN JSD NOS. 463:

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 2

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEO UCA
1710	PLANER/ENCL	72.0
1710	PLANER/ENCL	72.0
1711	PLANER/ENCL	70.0
1711	PLANER/ENCL	70.0
1702	PLANER	104.0
1702	PLANER	100.0
1694	KILN CHAIN CONVYR	53.0
1692	KILN CHAIN CONVYR	55.0
1692	KILN CHAIN CONVYR	55.0
1691	KILN CHAIN CONVYR	50.0
1690	KILN CHAIN CONVYR	55.0
1690	KILN CHAIN CONVYR	50.0
1690	KILN CHAIN CONVYR	50.0
1687	KILN	55.0
1682	GREEN CHAIN CONVY	55.0
1682	GREEN CHAIN CONVY	55.0
1681	GREEN CHAIN CONVY	50.0
1674	TRIMMER	73.0
1674	TRIMMER	73.0
1670	TRIMMER	75.0
1655	RESAH-LARGE	74.0
1654	RESAH-LARGE	74.0
1634	EDGER	72.0
1639	EDGER	73.0
1636	EDGER	72.0
1634	EDGER	73.0
1636	EDGER	74.0
1637	EDGER	74.0
1637	EDGER	73.0
1637	EDGER	72.0
1623	HEADRIG	73.0
1622	HEADRIG	54.0
1617	CUT-OFF SAM	70.0
1616	CUT-OFF SAM	74.0
1603	DEBARKER	70.0
1603	DEBARKER	70.0
1604	DEBARKER	74.0
1604	DEBARKER	74.0
1513	WHEEL GRINDER	74.0

ENVIRONMENTAL PROTECTION AGENCY

DBR JUB NO. 9635

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: C

DATE: 1980

SIC CODE	GENERAL NAME	LOC DIA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE	CNT.R.	CODE	CNT.R.	CODE	CNT.R.
1883	BACK/MECHANIC SHP	65.0	1000	1.00	0	0.0	0	0.0
1881	BACK/FILEKUM	84.0	1623	0.50	1824	0.40	1831	0.10
1881	BACK/FILEKUM	74.0	1623	0.50	1824	0.40	1831	0.10
1881	BACK/FILEKUM	78.0	1623	0.50	1822	0.40	1831	0.10
1874	BACK/PIPE SHUP	85.0	1513	0.00	1604	0.20	1704	0.20
1879	BACK/PIPE SHUP	65.0	1000	1.00	0	0.0	0	0.0
1875	BACK/CARPNTR 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 KIPSAR	84.0	1735	0.70	1621	0.30	0	0.0
1829	BACK/GANG SAW	41.0	1831	0.00	1622	0.20	1623	0.20
1820	BACK/QUAD SAW	94.0	1822	0.00	1631	0.20	1623	0.20
1814	BACK/TRANSFER RM	84.0	1690	0.70	1682	0.30	0	0.0
1743	BACK/POWERHOUSE	82.0	1790	1.00	0	0.0	0	0.0
1793	BACK/POWERHOUSE	84.0	1790	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	0.00	1711	0.10	1716	0.10
1686	BACK/KILN&LNTL RM	86.0	1667	0.70	1682	0.10	1615	0.20
1680	BACK/GREEN CHAIN	83.0	1784	0.60	1672	0.20	1640	0.20
1665	BACK/TIMMER	90.0	1670	0.40	1661	0.10	0	0.0
1645	BACK/RESAH	96.0	1654	0.00	1822	0.30	1831	0.10
1630	BACK/EDGER	41.0	1630	0.70	1622	0.30	0	0.0
1601	BACK/DEBARKER	81.0	1603	0.50	1617	0.50	0	0.0
1601	BACK/DEBARKER	89.0	1603	0.50	1617	0.70	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JUB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242	PLANT NO. = 2	NU. OF SAMPLES	MEAN LEQ(LEQA)	STD. DEV.
1702	PLANER	2	108.5	0.71
1784	CHIPPER	10	104.0	2.04
1735	MULDER	1	102.0	0.0
1824	QUADSAM	1	97.0	0.0
1645	BACK/RESAHR	1	96.0	0.0
1670	TRIMMER	1	95.0	0.0
1734	MULDER	1	92.0	0.0
1823	QUADSAM	1	92.0	0.0
1616	CUT-OFF SAW	1	94.0	0.0
1820	BACK/QUAD SAW	1	94.0	0.0
1851	RIPSAH-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	92.0	0.71
1716	PLANER/ENCL	2	92.0	0.0
1853	RIPSAH-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	PUMPHOUSE	1	90.0	0.0
1802	FURKLIIFT	1	90.0	0.0
1822	QUADSAM	1	90.0	0.0
1622	HEADRIG	1	89.0	0.0
1686	BACK/KILNECNTL RM	1	88.0	0.0
1690	KILN CHAIN CONVYR	3	87.0	8.04
1692	KILN CHAIN CONVYR	2	87.0	2.03
1691	KILN CHAIN CONVYR	1	86.0	0.0
1601	BACK/DEBARKER	2	85.0	5.00
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/TRANSFEK RM	1	84.0	0.0
1849	BACK/SPEC RIPSAH	1	84.0	0.0
1850	RIPSAH-SPECIALTY	1	84.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE	PLANT NO.	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1680	BACK/GREEN CHAIN	1	83.0	0.0
1694	KILN CHAIN CONVTR	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 SAW	1	77.0	0.0
1831	GANG SAW	1	77.0	0.0
1681	GREEN CHAIN CONVY	1	76.0	0.0
1617	CUT-UFF SAW	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/CARPNTR SHP	1	65.0	0.0
1883	BACK/MECHANIC SHP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BSN JUB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242	PLANT NO. = 2	NU DATES SPECIFIED		
EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(LEQA)	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	EUGER	8	92.4	0.95
1620	HEADRIG	2	91.0	0.0
1800	FORKLIFT	1	90.0	0.0
1792	PUNERHOUSE	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	84.9	0.0
1724	MULDER	6	84.7	0.71
1810	LUMBER CARRIER	2	83.0	1.41
1749	STACK BANDER	2	81.5	0.0
1679	GREEN CHAIN	3	81.3	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	69.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

CRN JOE NO. 9635

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242 PLANT NO: 2 DATE: 1968

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE					
			CODE	Time	CODE	Time	CODE	Time
265	LABOURER	1	1000	50.0	1030	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	PUMPER/HOUSE OPERATOR	3	1743	100.0	0	0.0	0	0.0
245	OILER	2	1001	20.0	1020	20.0	1645	20.0
			1029	20.0	1630	20.0	0	0.0
244	FILTERS	7	1001	100.0	0	0.0	0	0.0
236	PIPE-FITTERS	1	1074	15.0	1000	5.0	1020	30.0
			1740	30.0	1743	20.0	0	0.0
233	CARPENTERS	1	1020	20.0	1045	20.0	1030	20.0
			1700	20.0	1740	20.0	0	0.0
228	ELECTRICIANS	3	1020	20.0	1045	20.0	1030	20.0
			1700	20.0	1740	20.0	0	0.0
223	MACHINISTS	4	1003	100.0	0	0.0	0	0.0
219	MACHINISTS	2	1073	20.0	1020	20.0	1030	20.0
			1700	20.0	1740	20.0	0	0.0
211	HILLRIGHT/GENERAL	5	1001	20.0	1020	20.0	1645	20.0
			1029	20.0	1030	20.0	0	0.0
207	RAILCAR LOADER	4	1747	100.0	0	0.0	0	0.0
202	ORKLIFT OPERATOR	5	1754	20.0	1502	80.0	0	0.0
201	LUMBER CARRIER OPER	3	1010	100.0	0	0.0	0	0.0
197	MULDER CRUSHER	1	1731	100.0	0	0.0	0	0.0
196	MULDER FEEDER	1	1727	80.0	1734	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SBN JOB NO. 463

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 2

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PEERS.	TIME SPENT USING EQUIPMENT CODE	TIME CODE TIME	CODE TIME	CODE TIME
186	RIPSAW OPERATOR	1	1853 100.0	0	0.0	0
185	RIPSAW OPERATOR	1	1851 100.0	0	0.0	0
179	BANDER OPERATOR	2	1752 100.0	0	0.0	0
176	DRY CHAIN FULLER	14	1741 88.0	1694	12.0	0
173	GRADEK/PLANER MILL	8	1718 100.0	0	0.0	0
167	PLANER OPERATOR	4	1711 98.0	1702	2.0	0
161	UNSTACKER-DRY	2	1692 85.0	1700	15.0	0
160	KILN OPERATOR	1	1686 9.0	1614	49.0	0
159	TRANSFER OPERATOR	2	1614 50.0	1615	50.0	0
155	STICKERMAN-GREEN	2	1740 35.0	1691	65.0	0
154	STACKER-GREEN	2	1740 35.0	1690	65.0	0
154	STACKER-GREEN	2	1640 100.0	0	0.0	0
151	GREEN CHAIN FULLER	2	1681 100.0	0	0.0	0
148	TRIMMER OPERATOR	2	1670 100.0	0	0.0	0
145	GREEN CHAIN OPERATOR	2	1684 100.0	0	0.0	0
143	UNSCRAMBLE OPERATOR	2	1674 100.0	0	0.0	0
140	RESAN OPERATOR	2	1654 90.0	1655	10.0	0
137	CHIPPER OPERATOR	2	1639 90.0	1704	25.0	1763 25.0
134	EDGER OPERATOR	5	1638 70.0	1637	30.0	0

ENVIRONMENTAL PROTECTION AGENCY

SBN JOB NO. 4032

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 2

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE TIME	CODE TIME	CULL TIME	CULL TIME
133	SLAB BOARD PULLER	2	1034 100.0	0	0.0	0	0.0
131	GANG SAW OPERATOR	2	1031 90.0	1830	10.0	0	0.0
128	QUADSAW TAIL SAWYER	2	1024 100.0	0	0.0	0	0.0
123	SAWYER	4	1023 45.0	1022	5.0	1022	5.0
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
			1024 20.0	1030	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 7032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 4	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME=8HRS	WKR. STD. DEVIATION
26500	LABORER	1	1000 1630 1740 1820 1700	4.0 0.0 0.0 1.2 1.2	0.0 0.0 0.0 0.0 0.0
26100	CLEAN-UP MAN/REGULAR	1	1700	0.0	0.0
24800	PAPERHOUSE OPERATOR	3	1743	0.0	0.0
24500	UILER	2	1001 1820 1649 1824 1030	1.0 1.0 1.0 1.0 1.0	0.0 0.0 0.0 0.0 0.0
24400	FILERS	7	1081	0.0	0.0
23600	PIPE-FITTERS	1	1874 1000 1520 1740 1793	1.2 0.4 2.4 2.4 1.0	0.0 0.0 0.0 0.0 0.0
23300	CARPENTERS	1	1820 1645 1630 1700 1740	1.0 1.0 1.0 1.0 1.0	0.0 0.0 0.0 0.0 0.0
22800	ELECTRICIANS	3	1820 1645 1030 1700 1740	1.0 1.0 1.0 1.0 1.0	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = C	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NU. MEAN TIME-OHRS	NU. STD. DEVIATION
22300	MECHANICS	1	1863	5.0	0.0
21900	MACHINISTS	5	1873 1820 1630 1700 1740	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
21100	MILLWRIGHT/GENERAL	5	1601 1620 1640 1624 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
20700	RAILCAR LOADER	2	1747	5.0	0.0
20200	FORKLIFT OPERATOR	5	1752 1802	1.0 0.4	0.0 0.0
20100	LUMBER CARRIER OPER	3	1610	0.0	0.0
19700	MULDER OFFBEAKER	1	1731	0.0	0.0
19600	MULDER FEEDER	1	1727 1734	0.4 1.6	0.0 0.0
18600	RIPSAW OFFBEAKER	1	1853	0.0	0.0
18500	RIPSAW OPERATOR	1	1851	0.0	0.0
17900	BANDER OPERATOR	2	1754	0.0	0.0
17600	DRY CHAIN PULLER	14	1741 1644	7.0 1.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DSN J00 N0. 4030

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242	PLANT NO. = 2	NO. DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-EHRS	WKR. STD. DEVIATION
17300	GRADER/PLANER MILL	8	1710	0.0	0.0
16700	PLANER OPERATOR	4	1711 1702	7.5 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 1.0	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 2.2	0.0 0.0
15401	STACKER-GREEN	2	1690	0.0	0.0
15400	STACKER-GREEN	2	1740 1690	2.5 2.2	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	1684	0.0	0.0
14300	UNSCHAMBLE OPERATOR	2	1672	0.0	0.0
14000	RESAW OPERATOR	2	1654 1655	1.2 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

DAM JOB NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = C	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	No. OF PEWS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	WKR. STD. DEVIATION
13400	EDGER OPERATOR	6	1630 1637	3.0 2.4	0.0
13300	SLAB BOARD PULLER	2	1634	0.0	0.0
13100	GANG SAW OPERATOR	2	1631 1630	7.2 0.8	0.0
12600	QUADSAM TAIL SAWYER	2	1624	6.0	0.0
12300	SAWYER	4	1623 1622 1622	3.0 3.4 4.0	0.0
11401	DEBARKER OPERATOR	2	1603	0.0	0.0
11402	DEBARKER OPERATOR	2	1603 1602 1617	4.0 2.8 0.4	0.0
10700	PUND SURTER	2	1600	8.0	0.0
10100	SAWMILL SUPERVISOR	2	1601 1620 1645 1629 1630	1.0 1.0 1.0 1.0 1.0	0.0

PLANT NO. 3

ENVIRONMENTAL PROTECTION AGENCY

DSN JDO NO. 4035

INPUT EQUIPMENT DATA

SIC CODE:	PLANT NO:	DATE:
242	3	1986
EQUIP. CODE	GENERIC NAME	
		LEW
		MBA
1802	FUKALIFT	40.0
1790	POWERHOUSE	87.0
1794	POWERHOUSE	51.0
1741	DRY CHAIN CONVEYR	66.0
1741	DRY CHAIN CONVEYR	68.0
1741	DRY CHAIN CONVEYR	73.0
1710	PLANER/ENCL	70.0
1710	PLANER/ENCL	70.0
1711	PLANER/ENCL	102.0
1710	PLANER/ENCL	73.0
1702	PLANER	125.0
1694	KILN CHAIN CONVYR	53.0
1691	KILN CHAIN CONVYR	50.0
1691	KILN CHAIN CONVYR	51.0
1690	KILN CHAIN CONVYR	44.0
1690	KILN CHAIN CONVYR	51.0
1690	KILN CHAIN CONVYR	53.0
1683	GREEN CHAIN CONVY	75.0
1682	GREEN CHAIN CONVY	66.0
1672	TRIMMER	74.0
1670	TRIMMER	76.0
1604	TRIMMER	74.0
1647	RESAM-LARGE	70.0
1640	RESAM-LARGE	74.0
1638	EDGER	73.0
1637	EDGER	59.0
1623	MEALKIL	50.0
1622	MEALKIL	15.0
1617	CUT-OFF SAM	22.0
1616	CUT-OFF SAM	50.0
1603	DEBARKER	55.0
1602	DEBARKER	54.0

ENVIRONMENTAL PROTECTION AGENCY

SDR JSD NO. 403

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 3

DATE: 1980

SIC CODE	GENERAL NAME	LEW	EQUIPMENT DISTRIBUTION TO BALTIMORE				
			DEA	CODE CNTK.	CODE CNTR.	CODE CNTL	
1681	BACK/FILEROOM	84.0	1623	0.70	1638	0.30	0 0.0
1873	BACK/MACHINE SHOP	62.0	1000	1.00	0	0.0	0 0.0
1871	BACK/BASEMENT	96.0	1623	0.00	1638	0.40	0 0.0
1671	BACK/BASEMENT	84.0	1672	0.00	1682	0.40	0 0.0
1793	BACK/PURCHASER	86.0	1744	0.50	1746	0.50	0 0.0
1740	BACK/DRY CHAIN	74.0	1670	0.70	1741	0.30	0 0.0
1700	BACK/PLANER	94.0	1702	0.30	1716	0.20	0 0.0
1700	BACK/PLANER	92.0	1702	0.80	1711	0.20	0 0.0
1686	BACK/KILN&CONT'L RM	82.0	1602	0.30	1741	0.70	0 0.0
1680	BACK/GREEN CHAIN	82.0	1693	0.50	1682	0.40	0 0.0
1680	BACK/GREEN CHAIN	93.0	1683	0.60	1682	0.40	0 0.0
1665	BACK/TRIMMER	93.0	1672	0.00	1682	0.20	0 0.0
1645	BACK/RESAW	96.0	1647	0.90	1683	0.10	0 0.0
1630	BACK/EDGER	97.0	1638	0.30	1623	0.20	0 0.0
1621	BACK/HEADRUM	93.0	1623	0.30	1638	0.20	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242 PLANT NO. = 3 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(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/KESAH	1	96.0	0.0
1647	RESAH-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	RESAH-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	EDGEK	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	4.42
1794	POWERHOUSE	1	91.0	0.0
1802	FORKLIFT	1	90.0	0.0
1637	EDGEK	1	89.0	0.0
1741	DRY CHAIN CONVEYR	3	89.0	3.61
1793	BACK/POWERHOUSE	1	88.0	0.0
1680	BACK/GREEN CHAIN	2	87.5	7.70
1796	POWERHOUSE	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	7.70
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

DEM JOB NO. 4632

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	EDGER	2	91.0	0.0
1800	FORKLIFT	1	90.0	0.0
1792	PUNERHOUSE	2	89.0	0.0
1739	DRY CHAIN	3	89.0	3.61
1679	GREEN CHAIN	2	87.0	0.0
1688	KILN CHAIN	7	84.9	6.74
1610	CUT-OFF	2	84.0	0.0
1600	DEBARKER	2	84.0	0.0
1620	HEADRIG	2	77.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SERIAL JOB NO. 4037

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242		PLANT NO: 3		DATE: 1460				
JOB CODE	JOB DESCRIPTION	NO OF PERS.		TIME SPENT USING EQUIPMENT CODE	CODE TIME	CODE TIME	CODE TIME	
265	LABOREK	1	1000 1740	40.0 15.0	1080 0	15.0 0.0	1700 0	30.0 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 1030	40.0 5.0	1071 1645	45.0 5.0	1021 0	50.0 0.0
248	POWERHOUSE OPERATOR	3	1066	5.0	1793	95.0	0	0.0
244	FILERS	4	1061	100.0	0	0.0	0	0.0
213	MILLWRIGHT/PLANER	3	1060	25.0	1760	50.0	1740	22.0
212	MILLWRIGHT/SAWMILL	3	1071 1045	20.0 20.0	1021 1650	20.0 20.0	1030 0	20.0 0.0
207	RAILCAR LOADER	2	1000	100.0	0	0.0	0	0.0
202	ORKLIFT OPERATOR	4	1060	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	85.0	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	1091	90.0	1680	10.0	0	0.0
154	STACKER-GREEN	3	1080	90.0	1680	10.0	0	0.0
151	GREEN CHAIN PULLER	12	1063	100.0	0	0.0	0	0.0
146	TRIMMER OPERATOR	3	1070	45.0	1000	5.0	0	0.0
148	TRIMMER OPERATOR	3	1072	40.0	1650	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DOC JLG NO. 4631

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242 PLANT NO: 3 DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	TIME CODE				
144	LUMBER DIVERTER	3	1003	45.0	1000	5.0	0	0.0
140	RESAW OPERATOR	3	1047	65.0	1040	35.0	0	0.0
134	BUGER OPERATOR	3	1033	45.0	1037	5.0	0	0.0
123	SAYER	3	1023	70.0	1022	30.0	0	0.0
114	DEBARKER OPERATOR	3	1003	70.0	1004	25.0	1017	5.0
104	PLANER SUPERVISOR	3	1021	20.0	1030	20.0	1045	20.0
			1080	20.0	1000	20.0	0	0.0
101	SAWMILL SUPERVISOR	3	1021	20.0	1030	20.0	1045	20.0
			1080	20.0	1000	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

60M JUD NL. 9652

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 3		NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME=8HRS	NUR. STD. DEVIATION	
26500	LABORER	1	1000 1680 1700 1740	3.2 1.2 2.4 1.2	0.0 0.0 0.0 0.0	
26200	CLEAN-UP MAN/DOWN TM	1	1000	4.0	0.0	
26100	CLEAN-UP MAN/REGULAR	1	1000 1871 1621 1630 1645	3.2 3.6 0.4 0.4 0.4	0.0 0.0 0.0 0.0 0.0	
24600	POWERHOUSE OPERATOR	3	1000 1743	0.4 7.6	0.0 0.0	
24400	FILERS	4	1001	3.0	0.0	
21300	MILLWRIGHT/PLANER	3	1080 1700 1740	4.0 4.0 2.0	0.0 0.0 0.0	
21200	MILLWRIGHT/SAWMILL	3	1871 1621 1630 1645 1680	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0	
20700	RAILCAR LOADER	2	1000	0.0	0.0	
20200	FORKLIFT OPERATOR	8	1800	8.0	0.0	
18200	TALLYMEN	3	1000	0.0	0.0	
17600	DRY CHAIN PULLER	12	1741 1644	7.0 2.0	0.0 0.0	

ENVIRONMENTAL PROTECTION AGENCY

BON 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	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
17300	GRADER/PLANER MILL	6	1716	8.0	0.0
16700	PLANER 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 0.6	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	2.6 2.4	0.0 0.0
11400	DEBARKER OPERATOR	3	1603 1602 1617	2.6 2.0 0.4	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

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. STD. DEVIATION
10400	PLANER SUPERVISOR	3	1621 1630 1645 1680 1665	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
10100	SAWMILL SUPERVISOR	3	1621 1630 1645 1680 1665	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

PLANT NO. 4

ENVIRONMENTAL PROTECTION AGENCY

DOE JOB NO. 4030

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 4

DATE: 1970

EQUIP. CODE	GENERIC NAME	LEW UZA
1683	GREEN CHAIN CONVY	45.0
1682	GREEN CHAIN CONVY	42.0
1672	TRIMMER	45.0
1669	TRIMMER	43.0
1647	RESAW-LARGE	43.0
1638	EDGER	12.0
1637	EDGER	04.0
1623	HEADRIG	01.0
1622	HEADRIG	70.0
1617	CUT-OFF SAW	11.0
1610	CUT-OFF SAW	03.0
1603	DEBARKER	09.0
1602	DEBARKER	05.0

ENVIRONMENTAL PROTECTION AGENCY

EDN JUD AL. 9035

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NUS: 4

DATE: 1980

SIC CODE. GENERAL NAME LNU		LEV UBA	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR. CODE CONTR. CODE CONTR.					
1881	BACK/FILEDUM	81.0	1623	0.30	1630	0.20	0	0.0
1871	BACK/BASEMENT	94.0	1623	0.00	1630	0.40	0	0.0
1871	BACK/BASEMENT	86.0	1674	0.50	1633	0.50	0	0.0
1760	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	0.00	1672	0.40	0	0.0
1665	BACK/TRIMMER	93.0	1674	0.70	1662	0.30	0	0.0
1630	BACK/EDGER	93.0	1630	0.00	1653	0.20	0	0.0
1621	BACK/HEADRIG	98.0	1623	0.80	1630	0.20	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 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	74.0	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	69.0	0.0
1616	CUT-OFF SAW	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 4635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242 PLANT NO. = 4 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. 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	70.2	0.0
1610	CUT-OFF	2	68.0	0.0
1600	DEBARKER	2	67.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 9055

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242 PLANT NO: 4 DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING EQUIPMENT CODE	CODE	TIME	CODE	TIME	CODE	TIME
262	CLEAN-UP MAN/DUHN TM	1	1000	100.0	0	0.0	0	0.0	
261	CLEAN-UP MAN/REGULAR	2	1000	50.0	1071	20.0	1021	15.0	
			1030	15.0	0	0.0	0	0.0	
244	FILERS	3	1000	5.0	1081	95.0	0	0.0	
216	SHOPMAN/GENEAL	1	1000	60.0	1021	10.0	1060	10.0	
			1030	10.0	1065	10.0	0	0.0	
212	MILLERLIGHT/SAWMILL	4	1047	3.0	1001	27.0	1030	25.0	
			1065	25.0	1060	20.0	0	0.0	
202	FORKLIFT OPERATOR	3	1000	50.0	1062	40.0	1060	10.0	
151	GREEN CHAIN PULLER	4	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	1083	80.0	1000	5.0	1071	15.0	
134	EDGER OPERATOR	3	1038	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	SAWMILL SUPERVISOR	3	1000	5.0	1021	25.0	1030	25.0	
			1065	25.0	1060	20.0	0	0.0	

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242	PLANT NO. = 4	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	1	1000	8.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1000 1871 1621 1630	4.0 1.6 1.2 1.2	0.0 0.0 0.0 0.0
24400	FILERS	5	1000 1881	0.4 7.6	0.0 0.0
21600	SHOPMAN/GENERAL	1	1000 1621 1680 1630 1005	4.8 0.8 0.8 0.8 0.8	0.0 0.0 0.0 0.1 0.0
21200	MILLWRIGHT/SAWMILL	4	1047 1881 1630 1665 1680	0.2 2.2 2.0 2.0 1.6	0.0 0.0 0.0 0.0 0.0
20200	FORKLIFT OPERATOR	3	1800 1682 1680	4.0 3.2 0.8	0.0 0.0 0.0
15100	GREEN CHAIN PULLER	9	1682 1680	5.4 1.6	0.0 0.0
14800	TRIMMER OPERATOR	3	1672 1665	6.4 1.6	0.0 0.0
14400	LUMBER DIVERTER	3	1683 1680 1871	6.4 0.4 1.2	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUD NL. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 4		NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION	
13400	EDGER OPERATOR	3	1638 1637	6.4 1.6	0.0	
12300	SAINTER	3	1623 1622	5.6 2.4	0.0	
11400	DEBARKER OPERATOR	3	1603 1602 1617	5.6 2.0 0.4	0.0	
10100	SAHMILL SUPERVISOR	3	1000 1621 1630 1665 1680	0.4 2.0 2.0 2.0 1.6	0.0	

PLANT NO. 5

ENVIRONMENTAL PROTECTION AGENCY

JDN JUD NL# 4052

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NUS: 5

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEU WBA
1810	LUMBER CARRIER	03.0
1802	FORKLIFT	04.0
1802	FORKLIFT	04.0
1790	HUG	104.0
1784	HUG	106.0
1784	CHIPPER	102.0
1784	CHIPPER	73.0
1783	CHIPPER	07.0
1703	CHIPPER	04.0
1742	DRY CHAIN CONVEYR	06.0
1740	BACK/DRY CHAIN	06.0
1710	PLANER/ENCL	43.0
1711	PLANER/ENCL	45.0
1711	PLANER/ENCL	47.0
1710	PLANER/ENCL	42.0
1702	PLANER	114.0
1693	KILN CHAIN CONVYR	41.0
1693	KILN CHAIN CONVYR	41.0
1693	KILN CHAIN CONVYR	57.0
1693	KILN CHAIN CONVYR	55.0
1693	KILN CHAIN CONVYR	74.0
1693	KILN CHAIN CONVYR	03.0
1692	KILN CHAIN CONVYR	36.0
1692	KILN CHAIN CONVYR	41.0
1691	KILN CHAIN CONVYR	42.0
1691	KILN CHAIN CONVYR	03.0
1690	KILN CHAIN CONVYR	43.0
1690	KILN CHAIN CONVYR	05.0
1683	GREEN CHAIN CONVY	46.0
1683	GREEN CHAIN CONVY	43.0
1682	GREEN CHAIN CONVY	06.0
1682	GREEN CHAIN CONVY	03.0
1682	GREEN CHAIN CONVY	03.0
1682	GREEN CHAIN CONVY	02.0
1670	TRIMMER	43.0
1670	TRIMMER	44.0
1664	TRIMMER	40.0
1664	TRIMMER	44.0
1665	BACK/TRIMMER	40.0

ENVIRONMENTAL PROTECTION AGENCY

DOE JOB NO. 903

INPUT EQUIPMENT DATA

SIC CODE:	24c	PLANT NO:	5	DATE:	1960
EQUIP.	GENERAL NAME	LEG		VSA	
CODE					
1647	KESAH-LARGE	72.0			
1640	KESAH-LARGE	05.0			
1636	EDGER	101.0			
1635	EDGER	74.0			
1627	MEADKIG	102.0			
1626	MEADKIG	74.0			
1623	MEADKIG	76.0			
1622	MEADKIG	73.0			
1614	CUT-UFF SAM	75.0			
1618	CUT-UFF SAM	44.0			
1603	DEGAKKEK	00.0			
1602	DEGAKKEK	00.0			

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 9030
P.

INPUT BACKGROUND DATA

SIC CODE:	242	PLANT NUS:	5	DATE:	1403
BACK. GENERAL NAME CODE		LEO DBA	EQUIPMENT CONTRIBUTION TO CODE CNTKR.	EQUIPMENT CONTRIBUTION TO CODE CNTKR.	EQUIPMENT CONTRIBUTION TO CODE CNTKR.
1881 BACK/FILEKUM		80.0	1623 0.60	1630 0.40	0 0.0
1881 BACK/FILEKUM		90.0	1647 0.50	1653 0.40	1636 0.10
1881 BACK/FILEKUM		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/PLANER		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 0.60	1682 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/RESAM		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/HEADKUM		95.0	1623 0.70	1614 0.10	1630 0.20

ENVIRONMENTAL PROTECTION AGENCY

BBN JUR 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 -EQ(UBA)	STD. DEV.
1702	PLANER	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	97.0	0.30
1647	BACK/RESAW	1	97.0	0.0
1711	PLANER/ENCL	2	96.0	1.41
1630	BACK/EDGER	2	95.0	2.12
1683	GREEN CHAIN CONVY	2	95.0	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	93.0	0.71
1715	PLANER/ENCL	1	93.0	0.0
1647	RESAW-LARGE	1	92.0	0.0
1669	TRIMMER	2	92.0	2.83
1700	BACK/PLANER	1	92.0	0.0
1710	PLANER/ENCL	1	92.0	0.0
1695	KILN CHAIN CONVY	1	91.0	0.46
1665	BACK/TRIMMER	1	90.0	0.0
1689	BACK/KILN CHAIN	2	89.0	0.71
1690	KILN CHAIN CONVY	2	89.0	5.00
1692	KILN CHAIN CONVY	2	88.0	3.24
1603	DEBARKER	1	88.0	0.0
1691	KILN CHAIN CONVY	2	87.0	6.30
1783	CHIPPER	2	87.0	2.83
1742	DRY CHAIN CONVEYR	1	86.0	0.0
1802	FORKLIFT	2	86.0	3.24
1881	BACK/FILEROOM	3	86.0	3.01
1602	DEBARKER	1	86.0	0.0
1713	BACK. ONLY CONTR.	0	85.0	0.0
1646	RESAW-LARGE	1	85.0	0.0
1693	KILN CHAIN CONVY	5	85.0	4.47
1692	GREEN CHAIN CONVY	4	83.0	1.73
1687	BACK. ONLY CONTR.	0	83.0	7.00
1685	BACK/KILN&CNTL RM	4	83.0	7.00

ENVIRONMENTAL PROTECTION AGENCY

BBN Job No. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242	PLANT NO. = 9	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

סִנְגָּוֶן סְנָאָת נָעַמְלָה ۹۶۳۵

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

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

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(USDIA)	STU. DEV.
1785	HUG	2	102.0	0.0
1699	PLANER	5	97.0	2.00
1629	EDGER	2	97.0	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	87.0	2.00
1620	HEADRIG	4	87.0	0.0
1688	KILN CHAIN	12	87.4	4.00
1600	DEBARKER	2	87.0	0.0
1800	FORKLIFT	4	88.0	3.04
1739	DRY CHAIN	2	84.0	0.0
1810	LUMBER CARRIER	1	83.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

EON JOB NO. 9050

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 5

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PEPS.	TIME SPENT USING EQUIPMENT CODE			CODE	TIME	
			CODE	TIME	CODE			
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
			1021	10.0	0	0.0	0	0.0
211	MILLWRIGHT/GENERAL	2	1081	50.0	1630	30.0	1645	10.0
			1021	10.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	3	1002	70.0	1000	30.0	0	0.0
202	FORKLIFT OPERATOR	2	1002	40.0	1000	60.0	0	0.0
201	LUMBER CARRIER OPER	1	1010	30.0	1000	60.0	0	0.0
182	TALLYMEN	1	1045	80.0	1005	20.0	0	0.0
176	DRY CHAIN PULLER	4	1746	80.0	1005	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	1704	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	1082	60.0	1639	20.0	0	0.0
162	UNSTACKER PULLER	3	1042	40.0	1740	60.0	0	0.0
161	UNSTACKER-DRY	1	1042	40.0	1740	60.0	0	0.0
160	KILN OPERATOR	1	1086	60.0	1000	20.0	0	0.0
155	STACKER-GREEN	1	1041	25.0	1689	75.0	0	0.0
154	STACKER-GREEN	1	1040	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SIC JUB NUS. 463

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	JOB CODE	JOB DESCRIPTION	PLANT NUS:	DATE:			
246			5	1980			
JOB CODE	PERIOD	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	TIME CODE	TIME CODE	TIME CODE	TIME CODE
151	1084	4	100.0	0	0.0	0	0.0
146	1070	1	90.0	1009	10.0	0	0.0
148	1070	1	10.0	1009	10.0	1030	80.0
144	1030	1	80.0	1021	20.0	0	0.0
140	1047	1	80.0	1040	10.0	0	0.0
130	1000	1	50.0	1240	50.0	0	0.0
137	1154	1	50.0	1753	50.0	0	0.0
134	1030	1	90.0	1535	10.0	0	0.0
127	1023	1	60.0	1624	10.0	0	0.0
123	1023	1	85.0	1622	10.0	0	0.0
114	1003 1010	1	75.0 5.0	1619 0	10.0 0.0	1002 0	5.0 0.0
111	1000	1	100.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4635

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 1740	1.6 6.4	0.0 0.0
26100	CLEAN-UP MAN/REGULAR	1	1000 1700 1680 1740 1689	4.0 1.6 0.8 0.8 0.8	0.0 0.0 0.0 0.0 0.0
22800	ELECTRICIANS	1	1000 1630 1645 1621	4.0 2.4 0.8 0.8	0.0 0.0 0.0 0.0
21100	MILLWRIGHT/GENERAL	2	1681 1630 1645 1621	4.0 2.4 0.8 0.8	0.0 0.0 0.0 0.0
20200	FORKLIFT OPERATOR	5	1802 1000	4.6 3.4	1.31 1.31
20100	LUMBER CARRIER OPER	1	1810 1000	2.8 5.2	0.0 0.0
18200	TALLYMEN	1	1695 1665	6.4 1.6	0.0 0.0
17600	DRY CHAIN PULLER	4	1742 1665	6.4 1.6	0.0 0.0
17300	GRADER/PLANER MILL	2	1716	8.0	0.0
16800	PLANER SET-UP MAN	1	1702 1700 1881	1.6 4.4 2.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JIB NO. 9632

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
16700	PLANER OPERATOR	1	1711 1710	7.6 0.4	0.0 0.0
16300	GRADER/SORTING CHAIN	1	1682 1689	6.4 1.6	0.0 0.0
16200	UNSTACKER PULLER	3	1692 1740	3.2 4.8	0.0 0.0
16100	UNSTACKER-DRY	1	1692 1740	3.2 4.8	0.0 0.0
16000	KILN OPERATOR	1	1680 1000	6.4 1.6	0.0 0.0
15500	STICKERMAN-GREEN	1	1691 1684	2.0 6.0	0.0 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 1664 1630	6.8 6.8 6.4	0.0 0.0 0.0
14800	TRIMMER OPERATOR	1	1670 1669	7.2 6.8	0.0 0.0
14400	LUMBER DIVERTER	1	1630 1621	6.4 1.6	0.0 0.0
14000	RESAW OPERATOR	1	1647 1646	6.8 1.2	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	NO. MEAN TIME-8HRS	NUR. STD. DEVIATION
13800	HOG OPERATOR	1	1000 1790	4.0 4.0	0.0 0.0
13700	CHIPPER OPERATOR	1	1784 1783	4.0 4.0	0.0 0.0
13400	EDGER OPERATOR	1	1636 1635	7.2 0.8	0.0 0.0
12700	TAIL SAWYER	1	1623 1622	0.8 1.2	0.0 0.0
12300	SAWYER	1	1623 1622	0.8 1.2	0.0 0.0
11400	DEBARKER OPERATOR	1	1603 1619 1602 1618	0.0 1.2 0.4 0.4	0.0 0.0 0.0 0.0
11100	LOG CARRIER OPER	1	1000	8.0	0.0

PLANT NO. 6

ENVIRONMENTAL PROTECTION AGENCY

DBN Job No. 9055

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 6

DATE: 1980

EQUIP. CODE	GENERIC NAME	LCW #BA
1831	GANG SAW	74.0
1830	GANG SAW	74.0
1802	FURKLIFT	05.0
1804	FURKLIFT	05.0
1786	HUG/ENCL	44.0
1787	HUG/ENCL	41.0
1764	CHIPPER	47.0
1784	CHIPPER	104.0
1783	CHIPPER	42.0
1783	CHIPPER	40.0
1770	CONVEYOR	71.0
1770	CONVEYOR	67.0
1770	CONVEYOR	63.0
1752	STALK SANDER	33.0
1751	STALK SANDER	33.0
1742	DRY CHAIN CONVEYR	07.0
1742	DRY CHAIN CONVEYR	07.0
1742	DRY CHAIN CONVEYR	04.0
1716	PLANER/ENCL	92.0
1716	PLANER/ENCL	91.0
1711	PLANER/ENCL	90.0
1711	PLANER/ENCL	90.0
1710	PLANER/ENCL	71.0
1702	PLANER	113.0
1696	KILN CHAIN CONVYR	45.0
1695	KILN CHAIN CONVYR	45.0
1693	KILN CHAIN CONVYR	70.0
1693	KILN CHAIN CONVYR	42.0
1692	KILN CHAIN CONVYR	45.0
1692	KILN CHAIN CONVYR	45.0
1691	KILN CHAIN CONVYR	79.0
1691	KILN CHAIN CONVYR	42.0
1690	KILN CHAIN CONVYR	40.0
1690	KILN CHAIN CONVYR	40.0
1687	KILN	00.0
1686	BACK/KILNGENTL RM	03.0
1682	GREEN CHAIN CONVY	00.0
1680	BACK/GREEN CHAIN	33.1
1670	TRIMMER	03.0

ENVIRONMENTAL PROTECTION AGENCY

EDN SUB NO. 46

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 0

DATE: 145

EQUIP. CODE	GENERIC NAME	LEO JCA
1670	TRIMMER	42.0
1669	TRIMMER	70.0
1669	TRIMMER	33.0
1659	KESAH-LARGE	74.0
1658	KESAH-LARGE	74.0
1638	EDGER	02.0
1637	EDGER	75.0
1627	HEADRIG	101.0
1626	HEADRIG	45.0
1623	HEADRIG	34.0
1622	HEADRIG	36.0
1617	CUT-OFF SAW	50.0
1616	CUT-OFF SAW	74.0
1603	GESÄRKER	70.0
1602	GESÄRKER	75.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4035

INPUT BACKGROUND DATA

SIC CODE: 244

PLANT NO: 6

DATE: 1964

BACK. GENERAL NAME CODE	LEQ DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR. CODE CONTR. CODE CONTR.		
1881 BACK/FILEKUM	82.0	1831 0.60	1843 0.40	0 0.0
1881 BACK/FILEKUM	80.0	1702 1.00	0 0.0	0 0.0
1873 BACK/MALMINE SHUP	79.0	1776 0.60	1858 0.40	0 0.0
1871 BACK/BASEMENT	84.0	1776 0.60	1870 0.20	0 0.0
1871 BACK/BASEMENT	83.0	1776 0.60	1831 0.20	1843 0.20
1829 BACK/GANG SAW	94.0	1831 0.60	1858 0.20	0 0.0
1760 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/PLANER	91.0	1702 0.60	1870 0.40	0 0.0
1689 BACK/KILN CHAIN	78.0	1693 0.70	1892 0.30	0 0.0
1665 BACK/TRIMMER	84.0	1670 0.50	1704 0.30	1741 0.20
1665 BACK/TRIMMER	94.0	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	1834 0.20	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUN 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	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	3.24
1630	BACK/EDGER	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 CONVYR	2	90.0	7.07
1742	DRY CHAIN CONVEYR	3	87.7	1.15
1670	TRIMMER	2	87.5	6.36
1669	TRIMMER	2	86.5	4.95
1682	GREEN CHAIN CONVY	1	86.0	0.0
1691	KILN CHAIN CONVYR	2	85.5	4.19
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
1602	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	2.55
1616	CUT-OFF SAW	1	79.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NU. 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	PLANER	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	PLANER/ENCL	2	92.5	3.54
1630	BACK/EDGER	1	92.0	0.0
1716	PLANER/ENCL	2	91.5	0.71
1710	PLANER/ENCL	1	91.5	0.0
1700	BACK/PLANER	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 JUB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

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

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1616	CUT-UFF 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	EUGER	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 JJB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (dB)

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

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN (dB(LBA))	STD. DEV.
1831	GANG SAW	1	74.0	0.0
1873	BACK/MACHINE SHOP	1	74.0	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

DON JDC NO. 9630

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242	PLANT NO. = 5	NO DATES SPECIFIED		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(LEQ)	STD. DEV.
1779	CHIPIPER	4	95.0	3.04
1699	PLANER	4	95.4	2.55
1785	HUG	2	92.7	0.0
1620	HEADKIG	4	90.0	0.0
1739	DRY CHAIN	3	87.7	1.12
1776	CUNVEYOR/GEN	3	87.0	4.00
1664	TRIMMER	4	87.0	5.70
1686	KILN CHAIN	10	85.1	6.44
1800	FURKLIFT	2	85.0	0.0
1679	GREEN CHAIN	2	84.8	0.0
1749	STACK BANDER	2	83.0	0.0
1685	KILN	2	81.5	0.0
1610	CUT-OFF	2	74.5	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	KESAW/LARGE	2	74.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DON 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	PLANER	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	CUNVEYOR/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	81.4	0.0
1610	CUT-OFF	2	79.5	0.0
1629	EDGER	2	78.5	0.0
1828	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	ELECTKIC 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	SAHMILL 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	MULDER	0	0.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DGN JDE NUS 903

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NUS: 6

DATE: 1967

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	TIME CODE	TIME CODE	TIME CODE	TIME	
266	HELPER	1	1000	100.0	0	0.0	0	0.0
260	HELPER	2	1024	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
			1069	20.0	1030	20.0	0	0.0
265	LABOURER	2	1000	100.0	0	0.0	0	0.0
260	LABOURER	2	1024	20.0	1021	20.0	1005	20.0
			1030	20.0	1071	20.0	0	0.0
245	GILER	2	1024	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	1041	20.0
			1069	20.0	1030	20.0	0	0.0
228	ELECTRICIANS	2	1000	20.0	1024	20.0	1021	20.0
			1069	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	HILLBRIGHT/GENERAL	4	1024	20.0	1021	20.0	1065	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	TALLYMAN	3	1000	100.0	0	0.0	0	0.0
162	TALLYMAN	2	1045	100.0	0	0.0	0	0.0
179	BANDER OPERATOR	2	1752	40.0	1700	20.0	1089	20.0
			1059	20.0	0	0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

EPA JOB NO. 4657

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242	PLANT #U: 0	DATE: 1960					
JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME SPENT USING EQUIPMENT CODE				
			CODE TIME CODE TIME CODE TIME				
176	DRY CHAIN PULLER	0	1043 100.0	0	0.0	0	0.0
173	GRAUER/PLANER MILL	4	1710 100.0	0	0.0	0	0.0
168	PLANER SET-UP MAN	2	1081 85.0	1000	10.0	1702	5.0
167	PLANER OPERATOR	4	1711 90.0	1710	5.0	1000	5.0
163	GRAUER/SORTING CHAIN	2	1042 100.0	0	0.0	0	0.0
162	UNSTACKER PULLER	0	1043 100.0	0	0.0	0	0.0
161	UNSTACKER-DRY	2	1042 100.0	0	0.0	0	0.0
160	KILN OPERATOR	2	1002 70.0	1000	20.0	1000	10.0
155	STICKERMAN-GREEN	2	1041 80.0	1030	20.0	0	0.0
154	STACKER-GREEN	2	1040 80.0	1000	20.0	0	0.0
148	TRIMMER OPERATOR	2	1070 90.0	1069	10.0	0	0.0
146	TRIMMER OPERATOR	2	1070 85.0	1069	15.0	0	0.0
145	GREEN CHAIN OPERATOR	2	1002 70.0	1000	30.0	0	0.0
138	HUG OPERATOR	2	1700 50.0	1707	50.0	0	0.0
137	CHIPPER OPERATOR	2	1704 60.0	1703	40.0	0	0.0
134	EUGER OPERATOR	2	1038 90.0	1037	10.0	0	0.0
131	GANG SAW OPERATOR	2	1031 95.0	1030	5.0	0	0.0
127	TAIL SAWER	2	1047 95.0	1020	5.0	0	0.0
123	SAYER	2	1023 45.0	1022	5.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

PER JOB NO. 463'

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 244

PLANT NO: 6

DATE: 1960

JOB CODE	JOB DESCRIPTION	NU OF PERS.	TIME SPENT USING EQUIPMENT CODE	CUBE	TIME CODE	TIME CODE	TIME
114	DEBARKEK 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 1829 1621 1665 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
26601	HELPER	2	1829 1621 1665 1630 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
26600	HELPER	1	1000	8.0	0.0
26501	LABORER	2	1829 1621 1665 1630 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
26500	LABORER	2	1000	8.0	0.0
24500	OILER	2	1829 1621 1665 1630 1700	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
24400	FILERS	3	1881	8.0	0.0
23300	CARPENTERS	1	1000 1829 1621 1665 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 8	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOR. MEAN TIME-BHRS	NOR. STD. DEVIATION
22800	ELECTRICIANS	2	1000 1829 1621 1669 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
21900	MACHINISTS	1	1873	8.0	0.0
21700	WELDER	1	1000	8.0	0.0
21100	MILLWRIGHT/GENERAL	4	1824 1621 1669 1700 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
20200	FORKLIFT OPERATOR	7	1004	8.0	0.0
18201	TALLYMEN	2	1695	8.0	0.0
18200	TALLYMEN	3	1000	8.0	0.0
17900	BANDER OPERATOR	2	1752 1700 1669 1669	3.2 1.6 1.6 1.6	0.0 0.0 0.0 0.0
17600	DRY CHAIN PULLER	6	1693	8.0	0.0
17300	GRADER/PLANER MILL	4	1716	8.0	0.0
16800	PLANER SET-UP MAN	2	1881 1000 1702	8.8 0.8 0.4	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JUB NU. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 6	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION
16700	PLANER OPERATOR	4	1711 1710 1000	7.2 0.4 0.4	0.0 0.0 0.0
16300	GRADER/SORTING CHAIN	2	1692	8.0	0.0
16200	UNSTACKER PULLER	6	1693	0.0	0.0
16100	UNSTACKER-DRY	2	1692	8.0	0.0
16000	KILN OPERATOR	2	1802 1000 1686	0.0 1.6 0.8	0.0 0.0 0.0
15500	STICKERMAN-GREEN	2	1691 1680	0.4 1.6	0.0 0.0
15400	STACKER-GREEN	2	1690 1680	0.4 1.6	0.0 0.0
14800	TRIMMER OPERATOR	4	1670 1669	7.0 1.0	0.23 0.23
14500	GREEN CHAIN OPERATOR	2	1682 1000	5.6 2.4	0.0 0.0
13800	HOG OPERATOR	2	1786 1787	4.0 4.0	0.0 0.0
13700	CHIPPER OPERATOR	2	1784 1783	4.8 3.2	0.0 0.0
13400	EDGER OPERATOR	2	1638 1637	7.2 0.8	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DDM JOB NO. 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	NUR. STD. DEVIATION	
13100	GANG SAW OPERATOR	2	1831 1830	7.6 0.4	0.0 0.0	
12700	TAIL SAWYER	2	1627 1626	7.6 0.4	0.0 0.0	
12300	SAWYER	2	1623 1622	7.6 0.4	0.0 0.0	
11400	DEBARKER OPERATOR	2	1000 1603 1602 1617	0.8 6.0 0.8 0.4	0.0 0.0 0.0 0.0	

PLANT NO. 7

ENVIRONMENTAL PROTECTION AGENCY

SSN JOb Nu. 4035

INPUT EQUIPMENT DATA

SIC CODE: 242 PLANT NU: 7 DATE: 1450

EQUIP. CODE	GENERIC NAME	LEW USA
1815	TRANSFER CARRIER	102.0
1810	LUMBER CARRIER	88.0
1810	LUMBER CARRIER	88.0
1802	FURALIFT	88.0
1790	HUG	94.0
1784	HUG	90.0
1788	HUG/ENCL	98.0
1787	HUG/ENCL	91.0
1784	CHIPPER	103.1
1762	CHIPPER/ENCL	96.0
1768	RESAM-SPECIALTY	91.0
1764	RESAM-SPECIALTY	93.0
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
1710	PLANER/ENCL	90.0
1710	PLANER/ENCL	93.0
1710	PLANER/ENCL	90.0
1711	PLANER/ENCL	91.0
1711	PLANER/ENCL	93.0
1711	PLANER/ENCL	93.0
1711	PLANER/ENCL	99.0
1710	PLANER/ENCL	91.0
1702	PLANER	110.0
1702	PLANER	117.0
1696	KILN CHAIN CONVYR	95.0
1695	KILN CHAIN CONVYR	98.0
1693	KILN CHAIN CONVYR	98.0
1691	KILN CHAIN CONVYR	92.0
1691	KILN CHAIN CONVYR	97.0
1691	KILN CHAIN CONVYR	70.0
1691	KILN CHAIN CONVYR	80.0
1690	KILN CHAIN CONVYR	91.0
1690	KILN CHAIN CONVYR	88.0
1690	KILN CHAIN CONVYR	72.0
1690	KILN CHAIN CONVYR	87.0
1687	KILN	94.0

ENVIRONMENTAL PROTECTION AGENCY

SDN JOB NO. 4635

INPUT EQUIPMENT DATA

SIC CODE: 242

PLANT NO: 7

DATE: 1400

EQUIP. CODE	GENERIC NAME	LEW JBA
1687	AILN	00.0
1684	GREEN CHAIN CUNVY	30.0
1682	GREEN CHAIN CUNVY	22.0
1682	GREEN CHAIN CUNVY	25.0
1680	BALAY/GREEN CHAIN	03.1
1672	TRIMMER	40.0
1671	TRIMMER	21.0
1670	TRIMMER	12.0
1669	TRIMMER	40.0
1664	TRIMMER	20.0
1647	RESAW-LARGE	51.0
1646	RESAW-LARGE	57.0
1638	EDGER	02.0
1636	EDGER	19.0
1637	EDGER	17.0
1637	EDGER	01.0
1630	EDGER	45.0
1632	EDGER	06.0
1623	MEALKIG	02.0
1623	MEALKIG	04.0
1622	MEALKIG	10.0
1622	MEALKIG	00.0
1613	CUT-OFF SAN	47.0
1612	CUT-OFF SAN	03.0
1603	DEGARKER	13.0
1602	DEGARKER	12.0

ENVIRONMENTAL PROTECTION AGENCY

DOE JOB NO. 4552

INPUT BACKGROUND DATA

SIC CODE: 242

PLANT NO: 7

DATE: 1980

	BACK. GENERAL NAME CODE	LEW 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/FILEKUM	70.0	1623 1.00	0 0.0	0 0.0	
1873	BACK/MACHINE SHP	70.0	1000 0.80	1802 0.20	0 0.0	
1871	BACK/BASEMENT	84.0	1647 0.50	1764 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	1764 0.80	1711 0.20	0 0.0	
1740	BACK/DRY CHAIN	85.0	1693 0.50	1754 0.20	1711 0.30	
1700	BACK/PLANER	92.0	1711 0.60	1764 0.40	0 0.0	
1689	BACK/KILN CHAIN	85.0	1670 0.70	1693 0.20	1810 0.10	
1665	BACK/TRIMMER	90.0	1670 0.50	1711 0.20	0 0.0	
1663	BACK/TRIMMER	94.0	1670 0.60	1636 0.40	0 0.0	
1649	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 JUB NO. 463

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242	PLANT NO. = 7	NO DATES SPECIFIE		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1702	PLANER	2	116.5	0.71
1784	CHIPPER	1	103.1	0.0
1815	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/HEADRIC	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	2.3
1700	BACK/PLANER	1	92.0	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 CONVYK	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 CONVYK	1	86.0	0.0
1687	KILN	2	85.5	7.76
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	HEADRIC	2	83.0	1.41
1691	KILN CHAIN CONVYR	4	82.5	9.54

ENVIRONMENTAL PROTECTION AGENCY

BON JUD NC. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1636	EDGER	2	80.0	2.12
1669	TRIMMER	2	80.0	14.14
1622	HEADRIG	2	79.0	1.41
1637	EDGER	2	78.0	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

BON JUB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LE4) GENERALIZED

SIC CODE = 242	PLANT NO. = 7	NO DATES SPECIFIE		
EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN LE4(DBA)	STD. DEV.
1779	CHIPPER	2	94.0	0.0
1699	PLANER	10	97.0	2.03
1785	HUG	4	92.0	0.0
1754	RESAM/SPECIALTY	2	92.0	0.0
1610	CUT-WFF	2	90.0	0.0
1679	GREEN CHAIN	4	89.5	3.02
1813	TRANSFER CARRIER	2	89.0	0.0
1644	RESAM/LARGE	2	84.0	0.0
1810	LUMBER CARRIER	2	88.0	0.0
1800	FORKLIFT	1	86.0	0.0
1739	DRY CHAIN	5	86.4	2.07
1685	KILN	2	55.0	7.70
1776	CONVEYOR/GEN	2	84.0	1.41
1684	KILN CHAIN	11	64.7	8.00
1664	TRIMMER	5	63.0	1.41
1629	EDGER	6	63.7	2.12
1620	HEADRIG	4	81.0	1.41
1600	DEBARKEK	2	72.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 4525

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	242	PLANT NO:	7	DATE: 1980				
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE	TIME CODE	CODE	TIME	
260	HELPER	6	1002	50.0	1000	50.0	0	0.0
220	ELECTRICIANS	30	1000	50.0	1021	20.0	1700	20.0
			1065	10.0	0	0.0	0	0.0
223	MECHANICS	10	1000	100.0	0	0.0	0	0.0
219	MACHINISTS	6	1073	40.0	1000	60.0	0	0.0
211	MILLwright/GENERAL	40	1000	50.0	1021	20.0	1700	20.0
			1065	10.0	0	0.0	0	0.0
202	FORKLIFT OPERATOR	7	1002	70.0	1000	30.0	0	0.0
201	LUMBER LARRIER OPER	7	1010	70.0	1000	30.0	0	0.0
191	SPECIALTY KESAH OPER	1	1764	50.0	1700	35.0	1740	15.0
190	SPECIALTY KESAH OPER	1	1764	50.0	1700	35.0	1740	15.0
162	TALLYMEN	4	1084	100.0	0	0.0	0	0.0
176	DRY CHAIN PULLER	8	1093	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	1069	100.0	0	0.0	0	0.0
166	PLANER SET-UP MAN	2	1711	45.0	1702	5.0	1081	50.0
167	PLANER OPERATOR	2	1711	95.0	1710	5.0	0	0.0
159	TRANSFER OPERATOR	3	1067	20.0	1515	70.0	1010	10.0
155	STICKERMAN-GREEN	4	1041	60.0	1089	20.0	0	0.0
154	STACKER-GREEN	4	1040	80.0	1009	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SDR JOB NO. 9055

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242

PLANT NO: 7

DATE: 1400

JOB CODE	JOB DESCRIPTION	NU OF PEPS.	TIME SPENT USING EQUIPMENT CODE	TIME	CODE	TIME	CODE	TIME
148	TRIMMER OPERATOR	2	1070	90.0	1069	10.0	0	0.0
148	TRIMMER OPERATOR	2	1070	95.0	1069	5.0	0	0.0
143	UNSCRAMBLE OPERATOR	2	1082	90.0	1080	10.0	0	0.0
140	RESAW OPERATOR	2	1047	85.0	1046	15.0	0	0.0
138	HUG OPERATOR	1	1707	15.0	1705	15.0	1621	20.0
			1069	20.0	1071	30.0	0	0.0
138	HUG OPERATOR	2	1071	50.0	1790	25.0	1784	25.0
134	EDGER OPERATOR	4	1055	80.0	1053	15.0	0	0.0
123	SAYER	4	1023	60.0	1022	20.0	0	0.0
120	CUT-OFF SAW OPERATOR	2	1013	10.0	1012	90.0	0	0.0
114	DEBARKER OPERATOR	2	1003	80.0	1002	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	MUR. MEAN TIME-0HRS	MUR. STD. DEVIATION
26600	HELPER	6	1802 1000	4.0 4.0	0.0 0.0
22800	ELECTRICIANS	30	1000 1621 1700 1665	4.0 1.6 1.6 0.8	0.0 0.0 0.0 0.0
22300	MECHANICS	10	1000	8.0	0.0
21900	MACHINISTS	8	1873 1000	3.2 4.8	0.0 0.0
21100	MILLWRIGHT/GENERAL	40	1000 1621 1700 1665	4.0 1.6 1.6 0.8	0.0 0.0 0.0 0.0
20200	FORKLIFT OPERATOR	7	1802 1000	2.6 2.4	0.0 0.0
20100	LUMBER CARRIER OPER	7	1810 1000	2.6 2.4	0.0 0.0
19100	SPECIALTY RESAW OFFB	1	1764 1700 1740	4.0 2.8 1.2	0.0 0.0 0.0
19000	SPECIALTY RESAW OPER	1	1764 1700 1740	4.0 2.8 1.2	0.0 0.0 0.0
18200	TALLYMEN	4	1689	8.0	0.0
17601	DRY CHAIN PULLER	10	1742	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

88N JUB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 7	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NCR. MEAN TIME-8HRS	NUR. 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 1702 1881	3.6 0.4 4.0	0.0 0.0 0.0
16700	PLANER OPERATOR	2	1711 1710	7.6 0.4	0.0 0.0
15900	TRANSFER OPERATOR	3	1687 1815 1816	1.6 2.6 4.0	0.0 0.0 0.0
15500	STICKERMAN-GREEN	4	1691 1689	6.4 1.6	0.0 0.0
15400	STACKER-GREEN	4	1690 1689	6.4 1.6	0.0 0.0
14800	TRIMMER OPERATOR	4	1670 1669	7.4 0.6	0.23 0.23
14300	UNSCRAMBLE OPERATOR	2	1682 1680	7.2 0.8	0.0 0.0
14000	RESAW OPERATOR	2	1647 1646	6.6 1.2	0.0 0.0
13801	HUG OPERATOR	2	1871 1790 1784	4.0 2.0 2.0	0.0 0.0 0.0
13800	HUG OPERATOR	1	1787 1788 1621 1605 1871	1.2 1.2 1.6 1.6 1.4	0.0 0.0 0.0 0.0 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	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION	
13400	EDGER OPERATOR	4	1636 1635	6.8 1.2	0.0 0.0	
12300	SAHYER	4	1623 1622	6.4 1.6	0.0 0.0	
12000	CUT-OFF SAW OPERATOR	2	1613 1612	6.8 7.2	0.0 0.0	
11400	DEBARKER OPERATOR	2	1603 1602	6.4 1.6	0.0 0.0	

PLANT NO. 8

ENVIRONMENTAL PROTECTION AGENCY

DOE JUR NO. 4655

INPUT EQUIPMENT DATA

SIC CODE:	244	PLANT NOS:	8	DATE:	1980
EQUIP.	GENERIC NAME				
CODE		LBC	UBA		
1802	FUKALIFT	91.0			
1802	FUKALIFT	05.0			
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	04.0			
1716	PLANER/ENCL	95.0			
1710	PLANER/ENCL	77.0			
1710	PLANER/ENCL	75.0			
1711	PLANER/ENCL	76.0			
1711	PLANER/ENCL	70.0			
1710	PLANER/ENCL	64.0			
1710	PLANER/ENCL	70.0			
1702	PLANER	110.0			
1702	PLANER	120.0			
1695	KILN CHAIN CONVEYR	72.0			
1694	KILN CHAIN CONVEYR	57.0			
1694	KILN CHAIN CONVEYR	55.0			
1694	KILN CHAIN CONVEYR	58.0			
1694	KILN CHAIN CONVEYR	90.0			
1694	KILN CHAIN CONVEYR	53.0			
1694	KILN CHAIN CONVEYR	66.0			
1693	KILN CHAIN CONVEYR	72.0			
1693	KILN CHAIN CONVEYR	59.0			
1691	KILN CHAIN CONVEYR	55.4			
1690	KILN CHAIN CONVEYR	60.4			
1687	KILN	55.0			
1670	TRIMMER	90.0			
1669	TRIMMER	43.0			
1669	TRIMMER	40.0			

ENVIRONMENTAL PROTECTION AGENCY

DOE JUG NO. 9035

INPUT BACKGROUND DATA

SIC CODE# 242

PLANT NU: 8

DATE: 1980

BACK. GENERAL NAME CODE	LeQ D&A	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR. CODE CONTR. CODE CONTR.	CODE CONTR.				
1760 BACK/SPEC RESIN	91.0	1762 0.60	1702 0.40	0	0.0		
1740 BACK/DRY CHAIN	85.0	1742 0.40	1694 0.30	1702	0.30		
1700 BACK/PLANER	84.0	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	1770 0.20	1802	0.10		
1665 BACK/TRIMMER	91.0	1670 0.40	1716 0.30	1770	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 JUB NO. 4632

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

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

EQUIP. CODE	GENERIC NAME	Nu. OF SAMPLES	MEAN -dB(A) (A)	STD. DEV.
1702	PLANER	2	118.0	2.55
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 CONVEYR	1	92.0	0.0
1669	TRIMMER	2	91.5	2.12
1760	BACK/SPEC RESAW	1	91.0	0.0
1693	KILN CHAIN CONVEYR	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 CONVEYR	6	86.8	2.48
1690	KILN CHAIN CONVEYR	1	86.4	0.0
1691	KILN CHAIN CONVEYR	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

BBN JUD NO. 4631

EQUIPMENT NOISE DATA AVERAGES (LEVEL) GENERALIZED

SIC CODE = 242 PLANT NO. = 3 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(USA)	STD. DEV.
1699	PLANER	9	99.0	5.00
1759	RESAH/SPECIALTY	9	97.2	0.87
1664	TRIMMER	3	93.0	2.12
1800	FORKLIFT	2	84.0	4.24
1688	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. 9030

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	242	PLANT NO.:	8	DATE: 1980			
JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING EQUIPMENT CODE	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	20.0	0.0
			1000 20.0	1689 20.0	0	0.0	
223	MACHINISTS	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	10.0	0.0
			1000 20.0	0 0.0	0	0.0	
202	FORKLIFT 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 KESAW OPER	2	1708 100.0	0	0.0	0	0.0
190	SPECIALTY KESAW OPER	1	1704 100.0	0	0.0	0	0.0
182	TALLYMEN	2	1045 90.0	1089 10.0	0	0.0	
174	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	1044 70.0	1089 30.0	0	0.0	
173	GRADEK/PLANER MILL	0	1716 40.0	1715 10.0	0	0.0	
173	GRADEK/PLANER MILL	1	1710 50.0	1000 50.0	0	0.0	
173	GRADEK/PLANER MILL	1	1094 50.0	1089 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

LEN JOB NO. 9032

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 242 PLANT NO: 6 DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME CODE	TIME SPENT	USING EQUIPMENT	CODE TIME	CODE	TIME
160	KILN OPERATOR	2	1047	30.0	1000	70.0	0	0.0
155	STICKERMAN-GREEN	1	1091	90.0	1089	10.0	0	0.0
154	STACKER-GREEN	1	1090	90.0	1089	10.0	0	0.0
154	STACKER-GREEN	1	1094	90.0	1000	10.0	0	0.0
140	TRIMMER OPERATOR	6	1070	90.0	1089	10.0	0	0.0
145	GREEN CHAIN OPERATOR	1	1044	30.0	1089	70.0	0	0.0
143	UNSCRAMBLE OPERATOR	1	1044	40.0	1089	60.0	0	0.0
104	PLANER SUPERVISOR	3	1000	25.0	1700	25.0	1760	2.0
			1069	20.0	1089	20.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE # 242		PLANT NO. = 8	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
26200	CLEAN-UP MAN/DOWN TM	2	1000	8.0	0.0
26100	CLEAN-UP MAN/REGULAR	2	1000 1700 1760 1665 1689	0.8 2.4 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
22300	MECHANICS	2	1000	8.0	0.0
21900	MACHINISTS	1	1000	8.0	0.0
21300	MILLWRIGHT/PLANER	1	1700 1000 1760 1665	0.8 0.0 0.8 0.4	0.0 0.0 0.0 0.0
20200	FORKLIFT OPERATOR	7	1802 1000	4.8 3.2	0.0 0.0
20100	LUMBER CARRIER OPER	1	1810 1000	4.8 3.2	0.0 0.0
19100	SPECIALTY RESAW OFFB	2	1766	8.0	0.0
19000	SPECIALTY RESAW OPER	1	1764	8.0	0.0
18200	TALLYMEN	2	1695 1689	7.2 0.8	0.0 0.0
17900	BANDER OPERATOR	2	1000	8.0	0.0
17601	DRY CHAIN PULLER	1	1694 1689	2.6 2.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 8	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NORM. MEAN TIME-8HRS	NORM. STD. DEVIATION
17600	DRY CHAIN PULLER	12	1742 1740	7.2 0.8	0.0 0.0
17302	GRADER/PLANER MILL	1	1694 1689	4.0 4.0	0.0 0.0
17301	GRADER/PLANER MILL	1	1716 1000	4.0 4.0	0.0 0.0
17300	GRADER/PLANER MILL	6	1716 1715	7.2 0.8	0.0 0.0
16800	PLANER SET-UP MAN	6	1702 1711	4.0 4.0	0.0 0.0
16700	PLANER OPERATOR	6	1711 1710	7.2 0.8	0.0 0.0
16000	KILN OPERATOR	2	1687 1000	2.4 2.0	0.0 0.0
15500	STICKERMAN-GREEN	1	1691 1689	7.2 0.8	0.0 0.0
15401	STACKER-GREEN	1	1694 1000	7.2 0.8	0.0 0.0
15400	STACKER-GREEN	7	1690 1669	7.2 0.8	0.0 0.0
14800	TRIMMER OPERATOR	6	1670 1669	7.2 0.8	0.0 0.0
14500	GKEEN CHAIN OPERATOR	1	1694 1689	2.4 2.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUS NU. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE =	242	PLANT NO. =	8	NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION
14300	UNSCRAMBLE OPERATOR	1	1694 1689	3.2 4.8	0.0 0.0
10400	PLANER SUPERVISOR	3	1000 1700 1760 1665 1689	1.2 2.0 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

PLANT NO. 9

ENVIRONMENTAL PROTECTION AGENCY

DBN JUN 1968 9612

INPUT EQUIPMENT DATA

SIC CODE: 242 PLANT NO: 4 DATE: 1968

EQUIP. CODE	GENERAL NAME	LEO JBA
1683	BACK/MECHANIC SHP	07.0
1802	FORKLIFT	06.0
1782	CHIPPER/ENCL	100.0
1782	CHIPPER/ENCL	100.0
1781	CHIPPER/ENCL	100.0
1761	CHIPPER/ENCL	70.0
1776	CUNVEYOR	40.0
1690	KILN CHAIN CONVYR	04.0
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	80.0
1690	KILN CHAIN CONVYR	74.0
1690	KILN CHAIN CONVYR	55.0
1684	BALK/KILN CHAIN	03.7
1667	KILN	70.0
1687	KILN	74.0
1682	GREEN CHAIN CONVY	00.0
1682	GREEN CHAIN CONVY	72.0
1680	BACK/GREEN CHAIN	03.1
1670	TRIMMER	50.0
1664	TRIMMER	77.0
1649	KESAH-LARGE	90.0
1646	KESAH-LARGE	90.0
1647	KESAH-LARGE	93.0
1646	KESAH-LARGE	68.5
1636	EDGER	52.0
1635	EDGER	76.0
1623	HEADKID	53.0
1622	HEADRIG	75.0
1617	CUT-OFF SAH	70.0
1616	CUT-OFF SAH	65.0
1600	DEBARKEK	74.0

ENVIRONMENTAL PROTECTION AGENCY

JBN JOG NO. 463

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.			
1861 BACK/FILE ROOM	76.0	1623 0.60	1600 0.40	0	0.0
1873 BACK/MACHINE SHOP	72.0	1770 0.50	1638 0.30	1623	0.20
1871 BACK/BASEMENT	94.0	1623 0.50	1638 0.40	1776	0.10
1871 BACK/BASEMENT	90.0	1770 0.60	1670 0.20	0	0.0
1799 BACK/OFFICE/SANML	63.0	1638 0.50	1623 0.40	1770	0.10
1665 BACK/TRIMMER	92.0	1647 0.40	1776 0.10	0	0.0
1645 BACK/RESAM	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/HEADRIG	95.0	1623 0.70	1638 0.30	0	0.0
1601 BACK/DEBARKER	87.0	1600 0.60	1623 0.40	0	0.0
1601 BACK/DEBARKER	93.0	1600 1.00	0 0.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 242	PLANT NO. = 9	NU DATES SPECIFIED		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(LUBAI)	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 CONVY	2	90.0	2.83
1691	KILN CHAIN CONVYR	2	89.0	4.24
1646	RESAW-LARGE	1	88.0	0.0
1802	FURKLIFT	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/SANML	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	78.0	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	74.0	0.0
1617	CUT-OFF SAW	1	70.0	0.0
1883	BACK/MECHANIC SHP	1	67.5	0.0
1638	BACK. ONLY CUNTR.	0	60.0	0.0
1616	CUT-OFF SAW	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON SUB NO. 9635

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 242	PLANT NO. = 9	NO DATES SPECIFIED		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(LDA)	STD. DEV.
1774	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	80.0	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	67.0	0.0
1610	CUT-OFF	2	67.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JLB NL. 9635

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	242	PLANT NL#:	9	DATE: 1960				
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE TIME	CODE TIME	CODE TIME	CODE TIME	CODE TIME
145	GREEN CHAIN OPERATOR	2	1082	50.0	1080	50.0	0	0.0
140	RESAW OPERATOR	2	1047	75.0	1046	25.0	0	0.0
137	CHIPPER OPERATOR	2	1782 1005	10.0 40.0	1021 1770	5.0 5.0	1030 0	40.0 0.0
134	EULER OPERATOR	2	1036	75.0	1035	25.0	0	0.0
123	SAMYER	2	1023	75.0	1022	25.0	0	0.0
117	DECK SCALER	2	1001	100.0	0	0.0	0	0.0
114	DEBARKER OPERATOR	2	1000	50.0	1000	50.0	0	0.0
101	SAMMILL SUPERVISOR	2	1744 1005	50.0 10.0	1021 1045	10.0 10.0	1030 0	20.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUB 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-8HRS	NOR. STD. DEVIATION	
26200	CLEAN-UP MAN/DOWN TM	1	1871 1770 1665 1000	2.0 1.6 1.2 3.2	0.0 0.0 0.0 0.0	
26100	CLEAN-UP MAN/REGULAR	1	1770 1000 1601 1871	1.2 1.2 4.0 1.6	0.0 0.0 0.0 0.0	
24500	FILEK	2	1000 1871 1621 1630 1665	2.0 4.0 0.8 0.8 0.4	0.0 0.0 0.0 0.0 0.0	
24400	FILEKS	2	1881 1630 1665 1645 1621	4.0 0.8 0.8 0.8 1.6	0.0 0.0 0.0 0.0 0.0	
23300	CARPENTERS	2	1621 1630 1665 1645 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0	
22300	MECHANICS	7	1883	6.0	0.0	
21900	MACHINISTS	1	1873	6.0	0.0	
21200	MILLER/KIGHT/SAWMILL	8	1000 1873 1621 1630 1645	0.8 0.8 2.4 2.4 1.6	0.0 0.0 0.0 0.0 0.0	

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9632

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 4		NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERIODS	EQUIP. CODE	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION	
20200	FORKLIFT OPERATOR	4	1602 1000	4.8 3.2	0.0 0.0	
18200	TALLYMEN	1	1695	0.0	0.0	
17600	DRY CHAIN PULLER	4	1693	0.0	0.0	
17300	GRADEK/PLANER MILL	1	1696	0.0	0.0	
16000	KILN OPERATOR	2	1687 1000	2.8 5.2	0.0 0.0	
15500	STICKERMAN-GREEN	2	1691 1684	4.0 4.0	0.0 0.0	
15400	STACKER-GREEN	2	1690 1684	4.0 4.0	0.0 0.0	
14800	TRIMMER OPERATOR	2	1670 1669	4.0 4.0	0.0 0.0	
14500	GREEN CHAIN OPERATOR	2	1682 1680	4.0 4.0	0.0 0.0	
14000	RESAW OPERATOR	2	1647 1646	0.0 2.0	0.0 0.0	
13700	CHIPPER OPERATOR	2	1782 1621 1630 1669 1776	0.8 0.4 3.2 3.2 0.4	0.0 0.0 0.0 0.0 0.0	
13400	EDGER OPERATOR	2	1636 1635	0.0 2.0	0.0 0.0	

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 4032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		PLANT NO. = 9	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NOK. MEAN TIME-8HRS	NUR. STD. DEVIATION
12300	SAYER	2	1623 1622	6.0 2.0	0.0 0.0
11700	DECK SCALER	2	1601	8.0	0.0
11400	DEBARKER OPERATOR	2	1600 1000	4.0 4.0	0.0 0.0
10100	SAWMILL SUPERVISOR	2	1794 1621 1630 1665 1645	4.0 0.8 1.6 0.8 0.8	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JUD NO. 9639

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (L-29)

SIC CODE = 242

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

NO DATES SPECIFIED

EQUIP. CODE	GENERAL NAME	Nu. OF SAMPLES	MEAN -dB(DBA)	STD. DEV.
1702	PLANER	12	112.0	3.45
1735	MULDER	2	103.0	2.12
1762	CHIPPER/ENCL	3	103.3	0.43
1764	CHIPPER	16	103.1	3.08
1763	RESAH-SPECIALTY	2	100.0	0.0
1613	CUT-OFF SAW	3	99.3	2.34
1781	CHIPPER/ENCL	2	98.0	2.03
1790	HUG	2	98.0	0.00
1627	HEADRIG	3	97.7	0.00
1626	HEADRIG	3	97.3	0.00
1624	QUADSAB	1	97.0	0.0
1764	RESAH-SPECIALTY	4	96.5	0.01
1780	BACK/CHIPPER	4	96.3	4.74
1649	BACK/RESAH	5	95.8	1.10
1636	EDGER	4	95.0	0.04
1683	GREEN CHAIN SAW	4	95.3	2.00
1614	CUT-OFF SAW	1	95.0	0.0
1649	RESAH-LARGE	4	95.0	0.0
1674	TRIMMER	2	95.0	0.0
1734	MULDER	1	95.0	0.0
1780	HUG/ENCL	2	95.0	1.41
1623	QUADSAB	1	95.0	0.0
1829	BACK/GANG SAW	2	95.0	0.00
1760	RESAH-SPECIALTY	3	94.7	3.21
1784	HUG	3	94.7	0.43
1767	RESAH-SPECIALTY	2	94.2	0.72
1711	PLANER/ENCL	15	94.2	3.07
1618	CUT-OFF SAW	1	94.0	0.0
1620	BACK/QUAD SAW	1	94.0	0.0
1851	RIPSAM-SPECIALTY	1	94.0	0.0
1630	BACK/EDGER	9	93.0	2.00
1621	BACK/HEADRIG	8	93.3	3.70
1647	RESAH-LARGE	4	93.0	2.10
1715	PLANER/ENCL	1	93.0	0.0
1716	PLANER/ENCL	14	92.0	2.01
1700	BACK/PLANER	4	92.0	2.01
1634	EDGER	2	92.0	0.71
1672	TRIMMER	2	92.0	3.40
1725	BACK/MULDER	1	92.0	0.0
1653	RIPSAM-SPECIALTY	1	92.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 40

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	242	PLANT NO.:	4	DATE:	196		
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE TIME	CODE TIME		
262	CLEAN-UP MAN/DOWN TIME	1	1071 25.0 1000 40.0	1776 0 0 0.0	20.0 0 0 0.0	1665 0 0 0.0	15.0 0.0
261	CLEAN-UP MAN/REGULAR	1	1776 15.0 1071 20.0	1000 0 0 0.0	15.0 0 0.0 0.0	1601 0 0 0.0	20.0 0.0
245	OILER	2	1000 25.0 1030 10.0	1071 50.0 1005 5.0	20.0 0 0 0.0	1621 0 0 0.0	10.0 0.0
244	FILEKS	2	1081 50.0 1045 10.0	1630 10.0 1621 40.0	10.0 0 40.0 0.0	1665 0 0 0.0	10.0 0.0
233	CARPENTERS	2	1621 20.0 1045 20.0	1630 20.0 1071 20.0	20.0 0 20.0 0.0	1665 0 0 0.0	20.0 0.0
223	MACHINISTS	7	1083 100.0	0	0.0	0	0.0
219	MACHINISTS	1	1073 100.0	0	0.0	0	0.0
212	HILLBRIGHT/SAWMILL	3	1000 10.0 1030 30.0	1073 10.0 1045 20.0	10.0 0 20.0 0.0	1621 0 0 0.0	30.0 0.0
202	FORKLIFT OPERATOR	4	1062 60.0	1000 40.0	40.0 0	0	0.0
182	TALLYMEN	1	1045 100.0	0	0.0	0	0.0
170	DRY CHAIN FULLER	4	1043 100.0	0	0.0	0	0.0
173	GRADER/PLANER MILL	1	1046 100.0	0	0.0	0	0.0
160	KILN OPERATOR	2	1067 35.0	1000 65.0	65.0 0	0	0.0
155	STICKERMAN-GREEN	2	1091 50.0	1089 50.0	50.0 0	0	0.0
154	STACKER-GREEN	2	1090 50.0	1089 50.0	50.0 0	0	0.0
148	TRIMMER OPERATOR	2	1070 50.0	1069 50.0	50.0 0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SUN JUB NO. 4030

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 LEVEL(DB)	STD. LEV.
1710	PLANER/ENCL	4	91.3	5.12
1671	TRIMMER	1	91.0	0.0
1760	BACK/SPEC KESAH	3	91.0	1.00
1787	HUG/ENCL	1	91.0	0.0
1815	TRANSFER CARRIER	2	91.0	15.00
1665	BACK/TRIMMER	13	90.0	4.29
1640	KESAH-LARGE	1	90.0	0.0
1760	KESAH-SPEC/ENCL	2	90.0	1.41
1783	CHIPPER	9	90.0	2.40
1622	QUADSAN	1	90.0	0.0
1671	BACK/BASEMENT	11	89.1	4.40
1635	EDGER	4	88.0	7.14
1640	KESAH-LARGE	4	88.0	3.07
1642	KILN CHAIN CONVYR	7	88.4	3.04
1696	KILN CHAIN CONVYR	3	88.0	6.00
1762	KESAH-SPEC/ENCL	2	88.0	2.03
1670	TRIMMER	11	87.7	3.20
1601	BACK/DEBARKER	4	87.0	5.00
1794	POWERHOUSE	2	87.0	4.95
1742	DRY CHAIN CONVEYR	10	86.9	2.13
1802	FURRLIFT	9	86.0	3.04
1682	GREEN CHAIN CONVY	15	86.0	4.50
1690	KILN CHAIN CONVYR	17	86.4	6.31
1796	POWERHOUSE	3	86.0	4.04
1669	TRIMMER	12	86.0	8.04
1649	KILN CHAIN CONVYR	5	86.0	6.03
1638	EDGER	8	85.9	8.24
1694	KILN CHAIN CONVYR	4	85.4	2.08
1691	KILN CHAIN CONVYR	14	85.4	6.37
1741	JKT CHAIN CONVEYR	10	85.4	3.02
1612	CUT-OFF SAW	2	85.0	2.03
1793	BACK/POWERHOUSE	3	84.7	3.00
1727	MULDER/ENCL	2	84.0	4.70
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/KILNECNTRL RM	0	83.7	6.20
1684	BACK/KILN CHAIN	6	83.7	2.07
1637	EDGER	8	83.0	4.00
1687	KILN	7	83.0	6.06

ENVIRONMENTAL PROTECTION AGENCY

BON JU NJ. 463:

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	NU. OF SAMPLES	MEAN (dB(A))	STD. DEV.
1752	STACK BANDER	3	83.3	1.53
1623	HEADRIG	9	83.2	4.06
1680	BACK/GREEN CHAIN	7	83.1	6.47
1794	BACK/OFFICE/SAMML	1	83.0	0.0
1693	KILN CHAIN CUNVTR	13	82.7	6.10
1740	BACK/DRY CHAIN	6	82.0	2.71
1852	KIPSAM-SPECIALTY	1	82.0	0.0
1731	MULDER/ENCL	3	81.3	6.00
1881	BACK/FILEROOM	12	81.2	4.05
1622	HEADRIG	4	79.1	4.70
1513	RHEEL GRINDER	1	79.0	0.0
1751	STACK BANDER	3	79.0	3.51
1603	DEBARKER	7	78.3	6.72
1831	GANG SAW	2	78.0	1.0
1616	CUT-OFF SAW	5	77.8	14.03
1720	MULDER/ENCL	4	76.5	2.14
1713	BACK. ONLY CUNTR.	6	76.0	2.01
1661	GREEN CHAIN CUNVY	1	76.0	0.0
1816	TRANSFER CARRIER	1	76.0	0.0
1617	CUT-JFF SAW	4	75.8	6.13
1830	GANG SAW	2	75.5	2.12
1602	DEBARKER	7	75.4	6.03
1877	BACK/ELECT SHOP	1	75.0	0.0
1874	BACK/PIPE SHOP	2	75.0	14.14
1654	RESAH-LAKUE	1	74.9	0.0
1655	RESAH-LAKUE	1	74.9	0.0
1653	RESAH-LAKUE	1	74.9	0.0
1659	RESAR-LAKUE	1	74.9	0.0
1607	DEBARKER	1	74.0	0.0
1873	BACK/MACHINE SHOP	7	74.0	6.04
1883	BACK/MECHANIC SHP	2	67.0	3.04
1606	DEBARKER	1	65.0	0.0
1869	BACK/STORAGE	1	65.0	0.0
1675	BACK/LARPNTR SHOP	1	65.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DUN JJB NO. 4630

EQUIPMENT NOISE DATA AVERAGES (LEVEL GENERALIZED)

SIC CODE = 242

NJ DATES SPECIFIED

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

EQUIP. CODE	GENERIC NAME	Nu. OF SAMPLES	MEAN dB(A)	STD. DEV.
1779	CHIPPER	30	96.4	3.01
1699	PLANER	40	93.3	3.52
1785	HUG	5	95.1	2.40
1759	RESAW/SPECIALTY	15	94.3	4.24
1819	QUADSAW	3	94.0	0.0
1803	LUG CARRIER	1	90.0	0.0
1604	TRIMMER	33	88.0	7.00
1848	RIP SAW/SPECIALTY	4	88.0	0.0
1776	CONVEYOR/GEN	5	87.0	3.11
1679	GREEN CHAIN	20	87.7	4.10
1629	EDGER	20	87.0	8.44
1724	MULCHER	10	86.0	4.94
1792	POWERHOUSE	5	86.0	4.37
1800	FORKLIFT	4	86.0	3.54
1644	RESAW/LARGE	14	86.0	3.14
1739	DRY CHAIN	20	86.0	3.11
1813	TRANSFER CARRIER	3	86.0	15.50
1680	KILN CHAIN	88	85.7	5.70
1810	LUMBER CARRIER	8	85.4	2.40
1620	HEADING	24	85.2	4.70
1610	CUT-OFF	10	84.3	8.40
1689	KILN	7	83.0	5.04
1749	STACK BANDER	6	81.4	2.77
1623	GANG SAW	4	76.0	1.50
1600	Debarker	17	76.0	6.74
1747	RAIL CAR LOAD	3	72.7	6.00
1790	SAWMILL OFFICE	1	70.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON 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 PEKS.	EQUIP. CODE	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION
26603	HELPER	1	1000 1829 1621 1665 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
26602	HELPER	2	1829 1621 1665 1630 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
26601	HELPER	1	1000	0.0	0.0
26600	HELPER	0	1804 1000	4.0 4.0	0.0 0.0
26504	LABORER	1	1000 1630 1740 1660 1700	4.0 0.8 0.8 1.2 1.2	0.0 0.0 0.0 0.0 0.0
26503	LABORER	1	1000 1680 1700 1740	3.2 1.2 2.4 1.2	0.0 0.0 0.0 0.0
26502	LABORER	1	1000 1740	1.6 0.4	0.0 0.0
26501	LABORER	2	1829 1621 1665 1630 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

ITEM JUB NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

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

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NDR. STD. DEVIATION
26500	LABORER	2	1000	8.0	0.0
26202	CLEAN-UP MAN/DOWN TM	3	1770	8.0	0.0
26201	CLEAN-UP MAN/DOWN TM	4	1000	8.0	0.0
26200	CLEAN-UP MAN/DOWN TM	1	1871 1770 1669 1000	2.0 1.6 1.2 3.2	0.0 0.0 0.0 0.0
26106	CLEAN-UP MAN/REGULAR	2	1784 1783 1776	1.6 1.6 4.8	0.0 0.0 0.0
26105	CLEAN-UP MAN/REGULAR	1	1700	6.0	0.0
26104	CLEAN-UP MAN/REGULAR	1	1000 1871 1621 1630 1649	3.2 3.6 0.4 0.4 0.4	0.0 0.0 0.0 0.0 0.0
26103	CLEAN-UP MAN/REGULAR	2	1000 1871 1621 1630	4.0 1.6 1.2 1.2	0.0 0.0 0.0 0.0
26102	CLEAN-UP MAN/REGULAR	1	1000 1700 1680 1740 1684	4.0 1.6 0.8 0.8 0.8	0.0 0.0 0.0 0.0 0.0
26101	CLEAN-UP MAN/REGULAR	2	1000 1700 1760 1669 1684	0.8 2.4 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUD NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

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

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NU. MEAN TIME-8HRS	NU. STD. DEVIATION
26100	CLEAN-UP MAN/REGULAR	1	1776 1000 1601 1871	1.2 1.2 4.0 1.6	0.0 0.0 0.0 0.0
24802	POWERHOUSE OPERATOR	12	1794 1796	4.0 4.0	0.0 0.0
24801	POWERHOUSE OPERATOR	3	1793	8.0	0.0
24800	POWERHOUSE OPERATOR	3	1686 1793	0.4 7.0	0.0 0.0
24502	OILER	2	1601 1820 1649 1829 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
24501	OILER	2	1829 1621 1609 1630 1700	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
24500	OILER	2	1000 1871 1621 1630 1609	2.0 4.0 0.8 0.8 0.4	0.0 0.0 0.0 0.0 0.0
24403	FILERS	6	1000	8.0	0.0
24402	FILERS	5	1000 1881	0.4 7.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

O&M JOB NO. 4632

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-BHRS	NO. STD. DEVIATION
24401	FILERS	14	1881	8.0	0.0
24400	FILERS	2	1881 1630 1662 1645 1621	4.0 0.8 0.8 0.8 1.0	0.0 0.0 0.0 0.0 0.0
23801	PIPE-FITTERS	2	1000 1776 1621 1630 1700	4.0 1.2 1.2 0.8 0.8	0.0 0.0 0.0 0.0 0.0
23800	PIPE-FITTERS	1	1874 1000 1820 1740 1793	1.2 0.4 2.4 2.4 1.6	0.0 0.0 0.0 0.0 0.0
23303	CARPENTERS	4	1000 1776 1621 1630 1700	4.0 1.2 1.2 0.8 0.8	0.0 0.0 0.0 0.0 0.0
23302	CARPENTERS	1	1820 1645 1630 1700 1740	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
23301	CARPENTERS	1	1000 1829 1621 1662 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JUB NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

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

JOB CODE	JOB DESCRIPTION	NU. OF PERKS.	EQUIP. CODE	NU. MEAN TIME-8HRS	NU. STD. DEVIATION
23300	CARPENTERS	2	1621 1630 1669 1642 1871	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
22804	ELECTRICIANS	5	1877 1776 1621 1630 1700	2.0 4.0 0.8 0.4 0.8	0.0 0.0 0.0 0.0 0.0
22803	ELECTRICIANS	3	1820 1649 1630 1700 1740	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
22802	ELECTRICIANS	1	1000 1630 1645 1621	4.0 2.4 0.8 0.8	0.0 0.0 0.0 0.0
22801	ELECTRICIANS	2	1000 1824 1621 1669 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
22800	ELECTRICIANS	30	1000 1621 1700 1669	4.0 1.6 1.6 0.8	0.0 0.0 0.0 0.0
22301	MECHANICS	15	1000	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

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

JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
22300	MECHANICS	8	1883	8.0	0.0
21903	MACHINISTS	5	1873 1820 1630 1700 1740	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
21902	MACHINISTS	8	1873 1000	3.2 4.8	0.0 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	SUPERMAN/GENERAL	1	1000 1621 1680 1630 1665	4.8 0.8 0.8 0.8 0.8	0.0 0.0 0.0 0.0 0.0
21302	HILLWRIGHT/PLANER	3	1000 1702 1621 1740	4.0 0.8 0.8 2.4	0.0 0.0 0.0 0.0
21301	HILLWRIGHT/PLANER	3	1680 1700 1740	2.0 4.0 2.0	0.0 0.0 0.0
21300	HILLWRIGHT/PLANER	1	1700 1000 1760 1665	0.6 0.0 0.8 0.4	0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBW 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 PERS.	EQUIP. CODE	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
21202	MILLWRIGHT/SAWMILL	3	1871 1821 1630 1645 1680	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
21201	MILLWRIGHT/SAWMILL	4	1847 1881 1630 1665 1680	0.2 2.2 2.0 2.0 1.6	0.0 0.0 0.0 0.0 0.0
21200	MILLWRIGHT/SAWMILL	3	1000 1871 1821 1630 1645	0.8 0.8 2.4 2.4 1.6	0.0 0.0 0.0 0.0 0.0
21104	MILLWRIGHT/GENERAL	4	1621 1000	0.8 1.2	0.0 0.0
21103	MILLWRIGHT/GENERAL	5	1801 1820 1645 1829 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
21102	MILLWRIGHT/GENERAL	2	1881 1630 1645 1621	4.0 2.4 0.8 0.8	0.0 0.0 0.0 0.0
21101	MILLWRIGHT/GENERAL	4	1824 1821 1665 1700 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DDN JOB NO. 4635

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	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION
21100	MILLWRIGHT/GENERAL	40	1000 1621 1700 1665	4.0 1.0 1.6 0.8	0.0 0.0 0.0 0.0
20701	RAILCAR LOADER	11	1747	0.0	0.0
20700	RAILCAR LOADER	2	1000	0.0	0.0
20204	FORKLIFT OPERATOR	5	1752 1802	1.6 0.4	0.0 0.0
20203	FORKLIFT OPERATOR	19	1800	0.0	0.0
20202	FORKLIFT OPERATOR	3	1600 1682 1680	4.0 3.2 0.8	0.0 0.0 0.0
20201	FORKLIFT OPERATOR	7	1802	0.0	0.0
20200	FORKLIFT OPERATOR	23	1602 1000	0.0 3.0	0.69 0.69
20101	LUMBER CARRIER OPER	11	1810	0.0	0.0
20100	LUMBER CARRIER OPER	9	1810 1000	0.2 2.8	0.94 0.94
19700	MOULDER OFFBEARER	3	1731	0.0	0.0
19601	MOULDER FEEDER	2	1727 1726	0.4 1.0	0.0 0.0
19600	MOULDER FEEDER	1	1727 1734	0.4 1.6	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JUB NO. 461

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		NU DATES SPECIFIC			
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. ST DEVIATI
19102	SPECIALTY RESAW OFFB	2	1766	8.0	0.0
19101	SPECIALTY RESAW OFFB	1	1764	4.0	0.0
			1700	2.8	0.0
			1740	1.2	0.0
19100	SPECIALTY RESAW OFFB	2	1768	8.0	0.0
19002	SPECIALTY RESAW OPER	2	1762	8.0	0.0
19001	SPECIALTY RESAW OPER	1	1764	4.0	0.0
			1700	2.8	0.0
			1740	1.2	0.0
19000	SPECIALTY RESAW OPER	1	1764	0.0	0.0
18600	KIPSAW OFFBEAKER	1	1853	0.0	0.0
18500	KIPSAW OPERATOR	1	1854	0.0	0.0
18204	TALLYMEN	1	1695	0.4	0.0
			1665	1.6	0.0
18203	TALLYMEN	6	1000	0.0	0.0
18202	TALLYMEN	4	1684	0.0	0.0
18201	TALLYMEN	2	1695	7.2	0.0
			1684	0.8	0.0
18200	TALLYMEN	3	1695	0.0	0.0
18100	CHECKERS	6	1740	0.0	0.0
17903	BANDER OPERATOR	3	1751	4.0	0.0
			1752	4.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4637

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	NHR. MEAN TIME-8HRS	NHR. STD. DEVIATION
17902	BANDER OPERATOR	2	1752	8.0	0.0
17901	BANDER OPERATOR	2	1752 1700 1689 1665	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 1665	8.4 1.6	0.0 0.0
17603	DRY CHAIN PULLER	10	1742	8.0	0.0
17602	DRY CHAIN PULLER	1	1694 1689	2.6 2.4	0.0 0.0
17601	DRY CHAIN PULLER	12	1742 1740	7.2 8.8	0.0 0.0
17600	DRY CHAIN PULLER	18	1693	8.0	0.0
17306	GRADER/PLANER MILL	16	1710 1700	5.6 2.4	0.0 0.0
17305	GRADER/PLANER MILL	20	1710	8.0	0.0
17304	GRADER/PLANER MILL	9	1689	8.0	0.0
17303	GRADER/PLANER MILL	1	1694 1689	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DAN SUB NO. 46

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242		NU DATES SPECIFI				
PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,						
JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	EQUIP. CODE	NUK. MEAN TIME=8HRS	NUK. S DEVIAT	
17304	GRADER/PLANER MILL	1	1716 1000	4.0 4.0	0.0	
17301	GRADER/PLANER MILL	6	1716 1715	7.2 6.8	0.0 0.0	
17300	GRADER/PLANER MILL	1	1696	6.0	0.0	
16804	PLANER SET-UP MAN	2	1702 1711 1716	1.0 3.5 3.5	0.0 0.0 0.0	
16803	PLANER SET-UP MAN	1	1702 1700 1581	1.6 4.4 2.0	0.0 0.0 0.0	
16802	PLANER SET-UP MAN	2	1881 1000 1702	6.8 6.8 6.4	0.0 0.0 0.0	
16801	PLANER SET-UP MAN	2	1711 1702 1881	3.6 0.4 4.0	0.0 0.0 0.0	
16800	PLANER SET-UP MAN	6	1702 1711	4.0 4.0	0.0 0.0	
16703	PLANER OPERATOR	8	1711 1700	5.6 2.4	0.0 0.0	
16702	PLANER OPERATOR	7	1711 1702	7.6 6.4	0.34 0.34	
16701	PLANER OPERATOR	4	1711 1710 1000	7.2 6.4 6.4	0.0 0.0 0.0	

ENVIRONMENTAL PROTECTION AGENCY

OEN JOB NO. 4635

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	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
16700	PLANER 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 4.5	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	3.4 4.8	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	1686 1814	0.4 7.0	0.0 0.0
16002	KILN OPERATOR	1	1686 1000	0.4 1.6	0.0 0.0
16001	KILN OPERATOR	2	1802 1000 1686	5.6 1.0 0.8	0.0 0.0 0.0
16000	KILN OPERATOR	4	1687 1000	2.0 0.4	0.23 0.23

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	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	NUR. ST DEVIATI
15901	TRANSFER OPERATOR	2	1814 1815	4.0 4.0	0.0 0.0
15900	TRANSFER OPERATOR	3	16d7 1815 1816	1.6 5.6 0.8	0.0 0.0 0.0
15600	UNIPAC OPERATOR	2	1694	8.0	0.0
15503	STICKERMAN-GREEN	2	1691	8.0	0.0
15502	STICKERMAN-GREEN	2	1740 1691	2.8 2.2	0.0 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 2.2	0.0 0.0
15403	STACKER-GREEN	7	1690	8.0	0.0
15402	STACKER-GREEN	5	1690 1680	2.6 2.4	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 = 242
 PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,
 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	WKR. STD. DEVIATION
15102	GREEN CHAIN PULLER	12	1683	8.0	0.0
15101	GREEN CHAIN PULLER	9	1682 1680	8.4 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 6.8	0.0 0.0
14803	TRIMMER OPERATOR	3	1670 1000	7.6 6.4	0.0 0.0
14802	TRIMMER OPERATOR	3	1672 1669	6.4 6.6	0.0 0.0
14801	TRIMMER OPERATOR	1	1670 1669 1630	6.8 6.8 6.4	0.0 0.0 0.0
14800	TRIMMER OPERATOR	17	1670 1669	6.8 6.2	1.08 1.08
14503	GREEN CHAIN OPERATOR	6	1682	8.0	0.0
14502	GREEN CHAIN OPERATOR	2	1682 1000	5.6 5.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUO NU. 403:

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242 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. ST. DEVIATI:
14501	GREEN CHAIN OPERATOR	1	1694 1689	2.4 5.6	0.0 0.0
14500	GREEN CHAIN OPERATOR	2	1682 1680	4.0 4.0	0.0 0.0
14402	LUMBER DIVERTER	3	1683 1680	7.6 0.4	0.0 0.0
14401	LUMBER DIVERTER	3	1683 1680 1871	0.4 0.4 1.2	0.0 0.0 0.0
14400	LUMBER DIVERTER	1	1630 1621	0.4 1.6	0.0 0.0
14302	UNSCRAMBLE OPERATOR	2	1674	0.0	0.0
14301	UNSCRAMBLE OPERATOR	2	1682 1680	7.2 0.6	0.0 0.0
14300	UNSCRAMBLE OPERATOR	1	1694 1689	3.2 4.8	0.0 0.0
14001	RESAW OPERATOR	2	1654 1655	7.2 0.6	0.0 0.0
14000	RESAW OPERATOR	10	1647 1646	2.8 4.2	0.74 0.74
13803	HUG OPERATOR	1	1000 1790	4.0 4.0	0.0 0.0
13802	HUG OPERATOR	2	1788 1787	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 4635

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	NU. MEAN TIME-8HRS	NU. STD. DEVIATION
13801	HOG OPERATOR	2	1871 1790 1784	4.0 2.0 2.0	0.0 0.0 0.0
13800	HOG OPERATOR	1	1787 1788 1621 1662 1671	1.2 1.2 1.6 1.6 2.4	0.0 0.0 0.0 0.0 0.0
13703	CHIPPER OPERATOR	2	1784 1783 1621	4.8 0.8 2.4	0.0 0.0 0.0
13702	CHIPPER OPERATOR	2	1634 1784 1783	4.0 2.0 2.0	0.0 0.0 0.0
13701	CHIPPER OPERATOR	3	1784 1783	4.5 3.5	0.46 0.46
13700	CHIPPER OPERATOR	2	1782 1621 1630 1662 1776	0.8 0.4 1.2 3.2 0.4	0.0 0.0 0.0 0.0 0.0
13401	EDGER OPERATOR	14	1638 1637	6.4 1.6	0.85 0.85
13400	EDGER OPERATOR	11	1636 1619	5.7 2.3	1.37 1.37
13300	SLAB BOARD PULLER	2	1639	8.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 463

PERSONNEL MURK 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	MUR. MEAN TIME=6HRS	NORM. ST DEVIATI
13100	GANG SAW OPERATOR	4	1831 1830	7.4 0.6	0.23 0.23
12600	QUADSAW TAIL SAWYER	2	1824	8.6	0.0
12701	TAIL SAWYER	1	1823 1822	8.8 1.2	0.0 0.0
12700	TAIL SAWYER	6	1827 1826	8.8 1.4	0.62 0.62
12301	SAWYER	4	1823 1822 1822	3.6 0.4 4.0	0.0 0.10 0.0
12300	SAWYER	19	1823 1822	8.3 1.7	0.61 0.61
12000	CUT-OFF SAW OPERATOR	2	1613 1612	0.8 7.2	0.0 0.0
11701	DECK SCALER	2	1613 1621	0.4 7.0	0.0 0.0
11700	DECK SCALER	2	1601	0.0	0.0
11404	DEBARKER OPERATOR	2	1606 1607	3.2 4.8	0.0 0.0
11405	DEBARKER OPERATOR	2	1603	8.0	0.0
11404	DEBARKER OPERATOR	8	1603 1602 1617	2.4 2.4 0.4	0.37 0.37 0.0

ENVIRONMENTAL PROTECTION AGENCY

EDN SUB NU. 9032

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	NUR. MEAN TIME-8HRS	NUR. STD. DEVIATION
11403	DEBARKER OPERATOR	1	1603 1619 1602 1618	0.0 1.2 0.4 0.4	0.0 0.0 0.0 0.0
11402	DEBARKER OPERATOR	2	1000 1603 1602 1617	0.8 0.0 0.8 0.4	0.0 0.0 0.0 0.0
11401	DEBARKER OPERATOR	2	1603 1602	0.4 1.6	0.0 0.0
11404	DEBARKER OPERATOR	2	1600 1000	4.0 4.0	0.0 0.0
11101	LUG CARRIER OPER	1	1808 1000	4.0 4.0	0.0 0.0
11100	LUG CARRIER OPER	1	1000	0.0	0.0
10800	LUG SORTER	2	1000	0.0	0.0
10700	PUND SORTER	6	1000	0.0	0.0
10402	PLANER SUPERVISOR	4	1000 1700	4.0 4.0	0.0 0.0
10401	PLANER SUPERVISOR	3	1621 1630 1645 1660 1665	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
10400	PLANER SUPERVISOR	3	1000 1700 1760 1665 1689	1.2 4.0 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 463

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 242	PLANT NOS. = 9, 8, 7, 6, 5, 4, 3, 2, 1,	NO. DATES	SPECIFIC		
JOB CODE	JOB DESCRIPTION	NO. OF PERIODS	EQUIP. CODE	NUR. MEAN TIME-SHRS	NUR. ST DEVIATI
10104	SAWMILL SUPERVISOR	3	1798 1776 1621 1630	4.0 1.6 1.2 1.4	0.0 0.0 0.0 0.0
10103	SAWMILL SUPERVISOR	2	1601 1820 1649 1829 1630	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
10102	SAWMILL SUPERVISOR	3	1621 1630 1649 1660 1669	1.6 1.6 1.6 1.6 1.6	0.0 0.0 0.0 0.0 0.0
10101	SAWMILL SUPERVISOR	3	1000 1621 1630 1669 1660	0.4 2.0 2.0 2.0 1.6	0.0 0.0 0.0 0.0 0.0
10100	SAWMILL SUPERVISOR	2	1799 1621 1630 1669 1649	4.0 0.8 1.6 0.8 0.8	0.0 0.0 0.0 0.0 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

DOC JDL NO. 9035

INPUT EQUIPMENT DATA

SIC CODE: 332 PLANT NO: 1 DATE: 1979

EQUIP. CODE	GENERIC NAME	LEW USA
1525	HAMMER	100.0
1513	WHEEL GRINDER	92.0
1511	GALK/ELEC GRINDER	88.0
1499	WHEELABRATOR	100.0
1494	SHAKEOUT TABLE	97.0
1490	SHAKEOUT CONVEYOR	105.0
1450	SHELL CURE	96.0
1440	FURNACE	93.0
1430	INDUCT. FURNACE	100.0
1374	MULLER	91.0
1330	SQUEZ/JOLT MULLER	94.0
1335	AUTO-MULDER	94.0
1117	PIN DRILL GRINDER	95.0

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 9635

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 1

DATE: 1974

BACK. GENERAL NAME CODE		LEQ	EQUIPMENT CONTRIBUTION TO BACKGROUND					
		DBA	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	
1526	BACK/HAMMER	85.0	1525	0.40	1513	0.30	1117	0.30
1485	BACK/SHAKEDOWN	85.0	1490	0.50	1493	0.30	1494	0.20
1334	BACK/MULDERS	85.0	1338	0.50	1335	0.30	1450	0.20

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (L-EQ)

SIC CODE = 332 PLANT NO. = 1 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. 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	PIN 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	MULLER	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

BBN JOB NO. 963

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332	PLANT NO. = 1	NU DATES SPECIFIE		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1484	SHAKEOUT/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	MULDER	2	94.0	0.0
1371	MULLER	1	91.0	0.0
1510	ELECTRIC GRINDERS	2	90.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9032

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 334

PLANT NO: 1

DATE: 1974

JOB CODE	JOB DESCRIPTION	NO OF PEPS.	TIME SPENT USING EQUIPMENT CODE					
			CODE	TIME	CODE	TIME	CODE	TIME
467	MELLAGKATOR OPER	1	1449	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	60.0
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 GLICK	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	60.0	1334	40.0	0	0.0
367	POURER	0	1440	30.0	1438	30.0	1485	40.0
340	SQUEEZ/JOLT MULLER OP	14	1338	70.0	1334	30.0	0	0.0
339	AUTO-MULLER OPERATOR	2	1339	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	1458	70.0	1485	30.0	0	0.0
280	WHEEL GRINDER OPER	0	1513	80.0	1511	20.0	0	0.0
276	PIN DRILL GRINDER OP	1	1117	80.0	1520	20.0	0	0.0
202	FORKLIFT OPERATOR	2	1338	15.0	1440	15.0	1430	15.0
			1490	25.0	1485	30.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

EON JOB NO. 7032

PERSONNEL HOUR ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NO. *		NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERIODS	EQUIP. CODE	HRS. MEAN TIME-HRS	HRS. STD. DEVIATION
46700	WHELLABRATOR OPER	1	1499 1490 1494 1482	4.6 6.6 1.0 6.8	0.0 0.0 0.0 0.0
46200	CUPOLA OPERATOR	1	1440 1482	2.6 2.4	0.0 0.0
46100	INSPECTOR	1	1490 1522 1526	1.0 1.6 4.8	0.0 0.0 0.0
45900	SHIFTER	3	1440 1430 1402	0.8 0.5 0.4	0.0 0.0 0.0
45000	DUMPOUT/SHAKEOUT OP	2	1490 1494 1482	2.0 1.6 0.8	0.0 0.0 0.0
42700	CURE GLICK	1	1450 1334	1.6 5.4	0.0 0.0
42100	SMELL CORE OPERATOR	1	1420 1334	2.0 2.4	0.0 0.0
36500	MULLER OPER	1	1374 1334	4.6 3.4	0.0 0.0
36700	PURER	6	1440 1430 1402	2.4 2.4 3.2	0.0 0.0 0.0
34000	SQUEZ/JULT MULDER UP	14	1330 1334	2.6 2.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JUL NO. 7035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 1	NO. DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUK. MEAN TIME=DMKS	NLR. STD. DEVIATION
33900	AUTO-MULDER OPERATOR	2	1335 1334	0.4 1.0	0.0 0.0
32800	FURNACE CHARGER	1	1440 1438 1437	2.4 2.4 3.2	0.0 0.0 0.0
32700	INDUCT. FURNACE OPER	1	1438 1489	2.0 2.4	0.0 0.0
26000	WHEEL GRINDER OPER	0	1513 1511	0.4 1.0	0.0 0.0
27600	PIN DRILL GRINDER OP	1	1117 1520	0.4 1.0	0.0 0.0
20200	FORKLIFT OPERATOR	2	1338 1440 1438 1440 1489	1.4 1.2 1.4 2.0 2.4	0.0 0.0 0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 2

ENVIRONMENTAL PROTECTION AGENCY

OEN JOB NO. 4030

INPUT EQUIPMENT DATA

SIC CODE: 334

PLANT NO: 2

DATE: 1974

EQUIP. CODE	GENERIC NAME	LEO #EA
1517	STAND STONE GRIND	41.0
1517	STAND STONE GRIND	42.0
1503	RADIAL SAW	422.0
1502	BAND SAW	44.0
1480	SHAKERUT	44.0
1480	SHAKERUT	67.0
1482	PN VIBRATOR	102.0
1459	COKE SET LINE	43.0
1451	NU-BAKE COKE	44.0
1450	SHELL CORE	45.0
1440	CRUCIBLE	45.0
1435	BALK/FURNACE	63.0
1374	MULLER	67.0
1374	MULLER	41.0
1338	SQUEZ/JOLT MOLDER	46.0
1194	KUTUBLAST	50.0
1146	PN TAMPER	47.0
1117	PN DRILL GRINDER	40.0
1117	PN DRILL GRINDER	49.0

ENVIRONMENTAL PROTECTION AGENCY

DOA JOB NO. 4035

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 2

DATE: 1979

BACK. GENERAL NAME CODE	LEO DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND CODE CONTR. CODE CONTR. CODE 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	1484	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	1330 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 JUB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

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

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(USA)	STD. DEV.
1482	PN VIBRATOR	1	102.0	0.0
1503	RADIAL SAW	1	102.0	0.0
1338	SQUEE/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	RUTUBLAST	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 SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(DBA)	STD. DEV.
1480	PNEUMATIC VIBRATOR	1	102.0	0.0
1500	SAH/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	CORE SET LINE	1	93.0	0.0
1484	SHAKE OUT/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

684 JOB NO. 4035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 2

DATE: 1974

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE CYCLE TIME	CODE TIME	CODE TIME		
504	RADIAL SAH OPERATOR	2	1503 60.0	1501 40.0	0	0.0	
502	BAND SAH OPERATOR	2	1502 60.0	1501 40.0	0	0.0	
440	SHAKEOUT OPERATOR	2	1486 60.0	1501 20.0	0	0.0	
440	SHAKEOUT OPERATOR	4	1480 60.0	1485 40.0	0	0.0	
426	CURE SETTER	3	1459 80.0	1485 20.0	0	0.0	
422	NU-BAKE 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	RUTUBLAST OPERATOR	1	1144 30.0	1501 70.0	0	0.0	
365	MULLER OPER	1	1374 70.0	1501 30.0	0	0.0	
365	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	FLUOR MULDER	2	1140 20.0	1501 70.0	1402	10.0	
340	SQUEZ/JULT MULDER OP	4	1330 70.0	1334 30.0	0	0.0	
325	FURNACE OPERATOR	4	1440 60.0	1445 20.0	1485	20.0	
282	TRIM GRINDER OPER	4	1503 60.0	1501 40.0	0	0.0	
281	STAND STUNE GRINDER	4	1517 60.0	1501 40.0	0	0.0	

ENVIRONMENTAL PROTECTION AGENCY

DOA JOB NO. 9655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 6		NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NU. OF PCKS.	EQUIP. CODE	NUK. MEAN TIME-BHRS	NUK. STD. DEVIATION	
50400	RADIAL SAM OPERATOR	2	1503 1501	4.8 3.2	0.0 0.0	
50200	BAND SAM OPERATOR	2	1504 1501	4.8 3.2	0.0 0.0	
44001	SHAKEOUT OPERATOR	4	1480 1485	4.8 3.2	0.0 0.0	
44000	SHAKEOUT OPERATOR	2	1480 1501	4.4 3.0	0.0 0.0	
42600	CURE SETTER	3	1459 1485	6.4 1.8	0.0 0.0	
42200	MU-BAKE CURE OPER	5	1451 1449	4.0 4.0	0.0 0.0	
42100	SHELL CURE OPERATOR	5	1450 1449	4.0 4.0	0.0 0.0	
40200	RUTUBLAST OPERATOR	1	1194 1501	2.4 2.6	0.0 0.0	
38501	MULLER OPER	1	1374 1485	2.6 2.4	0.0 0.0	
38500	MULLER OPER	1	1374 1501	2.6 2.4	0.0 0.0	
36701	POUREK	2	1446 1501 1435	4.6 3.6 0.8	0.0 0.0 0.0	
36700	POUREK	2	1446 1485 1435	4.6 3.6 0.8	0.0 0.0 0.0	

ENVIRONMENTAL PROTECTION AGENCY

204 JUP NO. 9032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 2	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME=6MRS	WKR. STD. DEVIATION
34100	FLOOR MULDER	2	1140 1201 1402	1.6 3.6 0.0	0.0 0.0 0.0
34000	SLIDE/JOLT MULDER OP	4	1330 1334	2.6 2.4	0.0 0.0
32500	FURNACE OPERATOR	4	1440 1445 1465	4.8 1.6 1.6	0.0 0.0 0.0
28200	TRIM GRINDER OPER	4	1503 1501	4.8 3.2	0.0 0.0
26100	STAND STONE GRINDER	4	1517 1501	4.0 3.2	0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 3

ENVIRONMENTAL PROTECTION AGENCY

OBIN JOE NO. 9057

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 3

DATE: 1974

EQUIP. CODE	GENERAL NAME	LEO #EA
1517	STAND STONE GRIND	91.0
1512	SWING GRINDER	93.0
1511	BACK/ELEC GRINDER	88.0
1507	CUT-OFF WHEEL	102.0
1494	WHEELABRATOR	94.0
1494	SHAKEOUT TABLE	105.0
1491	SHAKEOUT CONVEYOR	98.0
1452	CORE OVEN	82.0
1450	SHELL LURE	94.0
1430	INDUCT. FURNACE	87.0
1437	ARC FURNACE	102.0
1396	EXHAUST FAN	93.0
1395	BACK/EXHAUST FAN	87.0
1392	HYDRAULIC PUMP	90.0
1367	SANDSLINGER	90.0
1373	SANDMULLER	96.0
1340	MULDER-PACEMAKER	82.0
1337	HI-PRESS. MULDER	92.0
1330	SHELL MULDER	94.0
1195	SPIRALLLAST	90.0
1180	ARC AIR GOUVERS	102.0
1140	PN TAMPER	90.0
1137	PN CHISEL	102.0
1120	PN WHEEL GRINDER	93.0
1114	PN LUNE GRINDER	97.0
1119	PN CONE GRINDER	90.0
1119	PN LUNE GRINDER	94.0
1116	PN DISC GRINDER	99.0
1116	PN DISC GRINDER	97.0

ENVIRONMENTAL PROTECTION AGENCY

SDM JOB NO. 4652

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 3

DATE: 1974

SIC CODE	GENERAL NAME	LEG DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
			CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.
1506	BACK/CUTUFF WHEEL	85.0	1507	0.40	1116	0.30	1330	0.30
1506	BACK/CUTUFF WHEEL	85.0	1507	1.00	0	0.0	0	0.0
1485	BACK/SHAKER	95.0	1493	1.00	0	0.0	0	0.0
1449	BACK/CURE 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/WLW/BRN/GUG	85.0	1160	1.00	0	0.0	0	0.0
1159	BACK/WLW/BRN/GUG	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 JUB 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	ARC AIR GOUGERS	1	102.0	0.0
1437	ARC FURNACE	1	102.0	0.0
1507	CUT-OFF WHEEL	1	102.0	0.0
1493	BACK, ONLY COMTR.	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 CUNE GRINDER	3	95.7	1.53
1336	SMELL MULDER	1	94.0	0.0
1450	SMELL COKE	1	94.0	0.0
1120	PN WHEEL GRINDER	1	93.0	0.0
1396	EXHAUST FAN	1	93.0	0.0
1512	SWING 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	WHEEELABRATOR	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	MULDER-PACEMAKER	1	82.0	0.0
1452	CORE OVEN	1	82.0	0.0
1449	BACK/COKE EQUIP	1	78.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BUN JOB NO. 463

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE	PLANT NO.	N	3	NO DATES SPECIFIED
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(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	HOLDER	3	89.3	0.0
1497	WHEELABRATOR	1	89.0	0.0
1448	CURE OVEN	2	88.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

GEN JOB NO. 7005

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	1345	10.0	
467	WHEELBARKER 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	1454	30.0	1444	70.0	0	0.0	
421	SHELL COKE OPERATOR	4	1450	50.0	1159	50.0	0	0.0	
405	SPRALBLAST OPERATOR	1	1445	40.0	1435	30.0	1485	30.0	
395	SANDSLINGER OPERATOR	2	1367	10.0	1130	30.0	1485	40.0	
			1494	10.0	0	0.0	0	0.0	
368	SANDMULLER OPERATOR	1	1373	80.0	1130	10.0	1491	10.0	
367	PUUREK	4	1437	40.0	1435	40.0	1405	20.0	
350	MULD HASH WORKER	1	1337	40.0	1441	20.0	1130	60.0	
342	PACEMAKER MULDER OPER	1	1340	40.0	1435	20.0	1465	40.0	
338	SHELLMULLER OPERATOR	4	1336	50.0	1506	50.0	0	0.0	
337	H1 PRESS. MULDER OP	2	1337	60.0	1506	20.0	1146	5.0	
			1342	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	1345	10.0	
281	STAND STONE GRINDER	2	1517	60.0	1511	30.0	1345	10.0	
279	SWING GRINDER OPER	3	1512	70.0	1511	30.0	0	0.0	

ENVIRONMENTAL PROTECTION AGENCY

DBR JOB NO. 4035

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332 PLANT NO: 3 DATES: 1979.

Job Code	Job Description	No of Pers.	Time Spent Using Equipment Code	Code Time	Code Time	Code Time	Code Time	
276	PN CONE GRINDER OPER	3	1114	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

SOI JOB NO. 9030

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-6HRS	NO. STD. DEVIATION
50500	CUT-OFF WHEEL OPER	2	1507 1508 1595	4.0 2.4 0.8	0.0 0.0 0.0
46700	WHEELABRATOR OPER	2	1494 1506	4.0 3.6	0.0 0.0
44300	SHAKEOUT TABLE OPER	2	1494 1485 1435	3.2 2.6 3.2	0.0 0.0 0.0
43300	CURE ROOM WORKER	17	1452 1449	2.4 3.6	0.0 0.0
42100	SHELL CURE OPERATOR	4	1450 1459	4.0 4.0	0.0 0.0
40500	SPRALBLAST OPERATOR	1	1195 1435 1455	3.2 2.4 2.4	0.0 0.0 0.0
39500	SANDSLINGER OPERATOR	2	1367 1130 1465 1494	1.2 2.4 3.2 1.2	0.0 0.0 0.0 0.0
38600	SANDMULLER OPERATOR	1	1373 1130 1441	0.4 0.8 0.8	0.0 0.0 0.0
36700	PUURER	4	1437 1435 1485	3.2 3.2 1.6	0.0 0.0 0.0
35000	MULD RASH WORKER	1	1337 1441 1130	1.6 1.6 4.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

O&M JOB NO. 9655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 3	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	EQUIP. CODE	WKR. MEAN TIME-BHRS	WKR. STD. DEVIATION
34200	PACEMAKER MULCR OPER	1	1340 1435 1485	3.2 1.6 3.2	0.0 0.0 0.0
33604	SHELLMULDER OPERATOR	4	1336 1506	4.0 4.0	0.0 0.0
33700	M1 PRESS, MULDER UP	2	1337 1506 1146 1394 1491	4.0 1.6 0.4 0.4 0.0	0.0 0.0 0.0 0.0 0.0
32700	INDUCT. FURNACE OPER	2	1436 1154	4.0 3.2	0.0 0.0
32600	ARC FURNACE OPERATOR	1	1437 1439	0.4 1.6	0.0 0.0
30204	ARC-AIR OPERATOR	6	1160 1154 1345	4.0 3.2 0.8	0.0 0.0 0.0
28100	STAND STONE GRINDER	2	1517 1511 1395	4.0 2.4 0.8	0.0 0.0 0.0
27900	SWING GRINDER OPER	3	1512 1511	3.0 2.4	0.0 0.0
27800	PN CUNE GRINDER OPER	3	1119 1506 1395	4.0 3.2 0.8	0.0 0.0 0.0
27700	PN DISC GRINDER OPER	4	1118 1506 1395	4.0 3.2 0.8	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

SDM JOB NO. 9655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NO. = 3	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	WKR. STD. DEVIATION
27500	PN GRINDER OPER	6	1120 1500 1390	4.0 3.2 3.6	0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 4

ENVIRONMENTAL PROTECTION AGENCY

OSR JOB NO. 9852

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 4

DATE: 1974

EQUIP. CODE	GENERAL NAME	LEO USA
1517	STAND STONE GRIND	45.0
1517	STAND STONE GRIND	40.0
1513	WHEEL GRINDER	102.0
1507	CUT-OFF WHEEL	47.0
1507	CUT-OFF WHEEL	48.0
1480	SHAKER	41.0
1450	SHELL COKE	40.0
1438	INDUCT. FURNACE	40.0
1438	INDUCT. FURNACE	40.0
1397	EXHAUST FAN	42.0
1374	MULLER	40.0
1374	MULLER	44.0
1338	SQUEZ/JULT MULDER	40.0
1338	SQUEZ/JULT MULDER	47.0
1339	AUTO-MULDER	47.0
1194	KUTUBLAST	43.0
1194	KUTUBLAST	46.0
1117	PN DRILL GRINDER	41.0

ENVIRONMENTAL PROTECTION AGENCY

SDN JUD NO. 9000

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 4

DATE: 1979

SIC CODE	GENERAL NAME	LEQ	EQUIPMENT CONTRIBUTION TO BACKGROUND					
		DBA	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE 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/SHAKERUT	87.0	1338	0.40	1438	0.40	1335	0.20
1449	BACK/CURE 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	1347	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	PLANT NO.	NO DATES SPECIFIED		
332	4			
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN (LEQ) (dB)	STD. DEV.
1513	WHEEL GRINDER	1	102.0	0.0
1507	CUT-OFF WHEEL	2	97.5	0.71
1335	AUTO-MOLDER	1	97.0	0.0
1338	SQUEE/JOLT MULDER	2	96.5	0.71
1450	SHELL CORE	1	96.0	0.0
1517	STAND STONE GRIND	2	92.0	3.54
1374	MULLER	2	92.0	2.43
1397	EXHAUST FAN	1	92.0	0.0
1194	RUTOBLAST	2	91.5	2.12
1117	PN 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. 961

EQUIPMENT NOISE DATA AVERAGES (LEQ) GENERALIZED

SIC CODE = 332 PLANT NO. = 4 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NO. 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	SHAKER/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

DOE JOB NO. 9032

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	332	PLANT NO#	4	DATE: 1974			
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE	TIME CODE	TIME	CODE
505	CUT-OFF WHEEL OPER	2	1507	70.0	1372	30.0	0
440	SHAKEOUT OPERATOR	0	1486	50.0	1372	20.0	1392
421	SHELL CORE OPERATOR	8	1450	70.0	1372	30.0	0
402	RUTUBLAST OPERATOR	2	1194	50.0	1372	30.0	0
385	MULLER OPER	1	1374	50.0	1372	20.0	1395
368	MELTER/PUCKER	0	1436	50.0	1372	20.0	1395
340	SQUEZ/JOLT MULLER OP	7	1338	70.0	1372	30.0	0
334	AUTOMULLER OPERATOR	2	1332	80.0	1372	20.0	0
281	STAND STORE GRINDER	2	1517	40.0	1372	20.0	1117
260	WHEEL GRINDER OPER	5	1513	40.0	1372	20.0	1117

ENVIRONMENTAL PROTECTION AGENCY

DDW Doc No. 1 9632

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 4	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NU. OF PESS.	EQUIP. CODE	NU. MEAN TIME-HRS	NU. STD. DEVIATION
50500	CUT-OFF WHEEL OPER	2	1507 1372	2.6 2.4	0.0
44000	SHAKER/JET OPERATOR	8	1486 1372 1395	4.0 4.0 2.4	0.0 0.0 0.0
42100	SHELL CORE OPERATOR	8	1450 1372	2.6 2.4	0.0 0.0
40200	RUTERBLAST OPERATOR	2	1194 1372	4.0 2.4	0.0 0.0
38500	MULLER OPER	1	1374 1372 1395	4.0 2.0 2.4	0.0 0.0 0.0
36600	MELTER/PUGGER	6	1438 1372 1395	4.0 2.0 2.4	0.0 0.0 0.0
34000	SQUEEZ/JET MULDER OP	7	1338 1372	3.0 2.4	0.0 0.0
33900	AUTO-MULDER OPERATOR	2	1335 1372	6.4 1.6	0.0 0.0
28100	STAND STONE GRINDER	2	1517 1372 1117	3.2 1.6 3.2	0.0 0.0 0.0
28000	WHEEL GRINDER OPER	5	1513 1372 1117	3.2 1.6 3.2	0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 5

ENVIRONMENTAL PROTECTION AGENCY

DOE JOB NO. 4055

INPUT EQUIPMENT DATA

SIC CODE:	PLANT NO.:	DATE:
334	5	1960
EQUIP. CODE	GENERAL NAME	LEO USA
1802	FORKLIFT	63.0
1542	COMPRESSED AIR	105.0
1542	COMPRESSED AIR	64.0
1542	COMPRESSED AIR	72.0
1535	VENTILATION	63.0
1517	STAND STONE GRIND	69.0
1512	SWING GRINDER	73.7
1509	TABUR CUT-OFF WHL	75.0
1508	CUT-OFF WHEEL	100.0
1499	WHEELABRATOR	36.0
1499	WHEELABRATOR	69.0
1492	SHAKEOUT TABLE	102.0
1492	SHAKEOUT TABLE	70.0
1482	PW VIBRATOR	72.0
1477	HUIST	74.0
1471	BALK/OVERHD CRANE	70.0
1453	FLEXIBLE COKE MKR	78.0
1443	LAULE PRE-HEAT	58.0
1443	LAULE PRE-HEAT	59.0
1443	LAULE PRE-HEAT	75.0
1442	FURNACE	66.0
1438	INDUCT. FURNACE	66.0
1437	ARC FURNACE	103.0
1437	ARC FURNACE	75.0
1387	SANDSLINGER	70.0
1375	SAND HOPPER/VIB	100.0
1375	SAND HOPPER/VIB	47.0
1375	SAND HOPPER/VIB	100.0
1375	SAND HOPPER/VIB	77.0
1375	SAND HOPPER/VIB	74.0
1341	MULDMASTER	104.0
1341	MULDMASTER	100.0
1341	MULDMASTER	79.0
1338	SQUEZ/JOLT MOLDER	110.0
1338	SQUEZ/JOLT MOLDER	110.0
1338	SQUEZ/JOLT MOLDER	104.0
1330	SHELL MOLDER	71.0
1330	SHELL MOLDER	76.0
1144	RUTUBLAST	77.0

ENVIRONMENTAL PROTECTION AGENCY

LBN JDB NO. 4037

INPUT EQUIPMENT DATA

SIC CODE: 332 PLANT NO: 5 DATE: 1960

EQUIP. CODE	GENERAL NAME	LEO JCA
1194	RUTUBLAST	92.0
1193	ABRASIVE BLAST	92.0
1184	ABRASIVE BLAST	95.0
1166	WELDING/ARC	93.0
1160	ARC AIR GOUGERS	100.0
1160	ARC AIR GOUGERS	100.0
1160	ARC AIR GOUGERS	100.0
1154	BACK/WLD/BKNG/BLUG	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	107.0
1120	PN WHEEL GRINDER	98.0
1120	PN WHEEL GRINDER	98.0
1120	PN WHEEL GRINDER	91.0
1120	PN WHEEL GRINDER	93.0
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 CUNE GRINDER	92.0
1119	PN CUNE GRINDER	93.0
1119	PN CUNE GRINDER	95.0
1110	PN DISC GRINDER	103.0
1110	PN DISC GRINDER	90.0
1118	PN DISC GRINDER	98.0
1117	PN DRILL GRINDER	93.0
1117	PN DRILL GRINDER	96.0
1117	PN DRILL GRINDER	93.0
1117	PN DRILL GRINDER	92.0

ENVIRONMENTAL PROTECTION AGENCY

DOE JUB NL. 4035

INPUT BACKGROUND DATA

SIC CODE: 334

PLANT NO: 5

DATE: 1980

BACK. GENERAL NAME CODE	LEG DBA	EQUIPMENT CONTRIBUTION TO BACKGROUND					
		CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.	CODE CONTR.
1551 BACK/EXHAUST FAN	87.0	1552	0.70	1336	0.30	0	0.0
1543 BACK/COMPRESS AIR	89.0	1542	0.00	1120	0.40	0	0.0
1536 BACK/VENTILATION	81.0	1535	1.00	0	0.0	0	0.0
1530 BACK/VENTILATION	80.0	1535	1.00	0	0.0	0	0.0
1536 BACK/VENTILATION	89.0	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	0.00	1118	0.20	1117	0.20
1536 BACK/VENTILATION	82.0	1535	0.00	1119	0.20	1120	0.20
1536 BACK/VENTILATION	83.0	1438	0.30	1535	0.70	0	0.0
1498 BACK/MHEELABRATOR	85.0	1499	0.00	1307	0.20	0	0.0
1498 BACK/MHEELABRATOR	86.0	1499	1.00	0	0.0	0	0.0
1485 BACK/SHAKEROUT	91.0	1492	0.70	1100	0.30	0	0.0
1481 BACK/PN VIBRATOR	78.0	1482	0.70	1330	0.30	0	0.0
1435 BACK/FURNACE	83.0	1435	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	0.00	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	0.80	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	1337	0.50	0	0.0
1386 BACK/SANDSLINGER	88.0	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/MULDEKS	82.0	1330	0.70	1482	0.30	0	0.0
1168 BACK/ABRASV BLAST	85.0	1144	0.50	1102	0.30	1160	0.20
1102 BACK/FIN/GKINDERS	84.0	1119	0.40	1117	0.40	1512	0.20
1102 BACK/FIN/GKINDERS	83.0	1517	0.40	1508	0.40	1166	0.20
1102 BACK/FIN/GKINDERS	82.0	1120	0.40	1118	0.30	1160	0.30

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332	PLANT NO. = 5	NO DATES SPECIFIED		
EQUIP. CODE	GENERIC NAME	NO. OF SAMPLES	MEAN LEQ(LdA)	STD. DEV.
1338	SQUEZ/JOLT MOLDER	3	110.7	7.02
1160	ARC AIR GOUVERS	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	FLEXIBLO CORE MKR	1	98.0	0.0
1375	SAND HOPPER/VIB	5	97.0	2.51
1482	PN VIBRATOR	1	96.0	0.0
1542	COMPRESSED AIR	3	95.3	8.51
1120	PN WHEEL GRINDER	8	95.3	3.1
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	HOIST	1	94.0	0.0
1512	SWING GRINDER	1	93.7	0.0
1119	PN CONE GRINDER	4	93.0	1.29
1336	SHELL MOLDER	2	93.0	3.24
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/GDUG	1	87.8	0.0
1499	WHEELABRATOR	2	87.5	2.12
1386	BACK/SANDSLINGER	3	87.3	5.03
1951	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 LEQ(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	MULDER	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	5.7
1497	WHEELABRATOR	2	87.5	2.02

ENVIRONMENTAL PROTECTION AGENCY

664 JUN NL. 7659

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NUS: 5

DATE: 14d0

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	CODE	TIME	CODE	TIME	CODE	TIME
534	PRESS OPERATOR	2	1102	100.0	0	0.0	0	0.0	0
534	PRESS OPERATOR	4	1102	100.0	0	0.0	0	0.0	0
506	TABLE CUT-OFF SAW OP	2	1509	80.0	1102	20.0	0	0.0	0
505	CUT-OFF WHEEL OPER	2	1508	60.0	1102	20.0	0	0.0	0
480	OVERHEAD CRANE OPER	2	1471	100.0	0	0.0	0	0.0	0
480	OVERHEAD CRANE OPER	2	1471	50.0	1435	50.0	0	0.0	0
480	OVERHEAD CRANE OPER	2	1471	40.0	1380	50.0	1485	10.0	0
480	OVERHEAD CRANE OPER	2	1471	30.0	1102	40.0	1188	30.0	0
467	MILLERATOR OPER	4	1494	60.0	1102	15.0	0	0.0	0
461	INSPECTOR	2	1102	70.0	1000	20.0	1159	10.0	0
443	SHAKEOUT TABLE OPER	4	1442	75.0	1485	25.0	0	0.0	0
404	MACHINE BLASTER	4	1493	75.0	1188	25.0	0	0.0	0
403	HAND BLASTER	2	1484	50.0	1188	25.0	1102	25.0	0
402	ROTOBLAST OPERATOR	2	1194	75.0	1188	25.0	0	0.0	0
402	ROTOBLAST OPERATOR	2	1194	85.0	1102	15.0	0	0.0	0
367	PUUREK	0	1435	40.0	1405	30.0	1536	15.0	0
			1334	10.0	1401	5.0	0	0.0	0
343	MULCHMASTER OPERATOR	0	1541	30.0	1375	35.0	1536	30.0	0
341	FLLOOR MULDER	2	1435	100.0	0	0.0	0	0.0	0
341	FLLOOR MULDER	4	1508	80.0	1485	15.0	1471	5.0	0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9656

INPUT PERSONNEL HOUR ASSIGNMENTS

SIC CODE:	JOB CODE	JOB DESCRIPTION	PLANT NO:	DATE:
			5	1400
			NO OF HRS.	TIME SPENT USING EQUIPMENT CODE
			CODE TIME	CODE TIME
341	FLUOR MELTER		4 1140	30.0 1300 40.0 1405 30.0
341	FLUOR MELTER		4 1146	30.0 1405 70.0 0 0.0
331	LAUL SKINNER		4 1405	50.0 1330 20.0 1435 20.0
			1334	5.0 1401 5.0 0 0.0
331	LAUL SKINNER		2 1435	30.0 1385 30.0 1535 30.0
			1334	5.0 1401 5.0 0 0.0
330	LAUL PRE-HEATER		2 1435	90.0 1405 10.0 0 0.0
330	LAUL PRE-HEATER		2 1435	80.0 1137 20.0 0 0.0
330	LAUL PRE-HEATER		2 1435	100.0 0 0.0 0 0.0
320	ARC FURNACE OPERATOR		4 1437	70.0 1435 30.0 0 0.0
319	PUNDEK 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 GUUGER		2 1160	50.0 1159 30.0 1102 20.0
310	ARC AIR GUUGER		2 1160	70.0 1159 30.0 0 0.0
310	ARC AIR GUUGER		4 1160	70.0 1102 30.0 0 0.0
310	ARC AIR GUUGER		2 1160	80.0 1517 20.0 0 0.0
303	ARC WELDER/A		10 1160	70.0 1159 20.0 1160 10.0
303	ARC WELDER/A		4 1160	60.0 1159 15.0 1104 5.0
303	ARC WELDER/A		2 1160	70.0 1159 30.0 0 0.0
303	ARC WELDER/A		10 1160	60.0 1102 25.0 1160 15.0

ENVIRONMENTAL PROTECTION AGENCY

DBN JUG NO. 9000

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332

PLANT NO: 5

DATE: 1980

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT	USING EQUIPMENT	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 1117 15.0	1119 15.0 1102 40.0	1118 0	15.0 0.0	
275	PN GRINDER OPER	4	1120 20.0 1117 5.0	1119 5.0 1102 65.0	1118 0	5.0 0.0	
275	PN GRINDER OPER	12	1120 20.0 1117 15.0	1119 20.0 1102 30.0	1118 0	15.0 0.0	
275	PN GRINDER OPER	24	1102 50.0 1119 10.0	1117 10.0 1120 20.0	1118 0	10.0 0.0	
266	HELPER	0	1586 90.0	1402 10.0	0	0.0	
265	LABORER	2	1435 100.0	0	0.0	0	0.0
265	LABORER	2	1435 50.0 1467 10.0	1102 10.0 1386 20.0	1530 0	10.0 0.0	
265	LABORER	2	1400 100.0	0	0.0	0	0.0
264	SERVICEMAN	2	1186 50.0	1102 50.0	0	0.0	
264	SERVICEMAN	2	1102 50.0 1400 10.0	1108 15.0 0 0.0	1159 0	25.0 0.0	
264	SERVICEMAN	4	1193 75.0	1100 25.0	0	0.0	
264	SERVICEMAN	2	1102 20.0	1334 40.0	1530 40.0		40.0
264	SERVICEMAN	2	1586 60.0	1530 40.0	0	0.0	
264	SERVICEMAN	2	1102 50.0	1159 50.0	0	0.0	

ENVIRONMENTAL PROTECTION AGENCY

DOE JOB NO. 4639

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE: 332 PLANT NO: 5 DATE: 1400

JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE	TIME	CODE	TIME	CODE	TIME
264	SERVICEMAN	4	1104	30.0	1159	30.0	1194	40.0
264	SERVICEMAN	2	1000	40.0	1380	30.0	1530	30.0
264	SERVICEMAN	2	1000	40.0	1334	20.0	1530	20.0
			1481	10.0	1543	10.0	0	0.0
264	SERVICEMAN	4	1000	20.0	1334	20.0	1530	40.0
			1481	5.0	0	0.0	0	0.0
264	SERVICEMAN	2	1435	100.0	0	0.0	0	0.0
203	WORKSAVER OPERATOR	0	1188	20.0	1102	60.0	1159	20.0
202	FORKLIFT OPERATOR	2	1000	25.0	1405	30.0	1495	25.0
			1404	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	1530	30.0
			1334	10.0	1341	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

SDN JUD NO. 4032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 5	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-HRS	WKR. STD. DEVIATION
53400	PRESS OPERATOR	6	1104	0.0	0.0
50600	TABOR CUT-OFF SAW OP	2	1504 1102	6.4 1.0	0.0 0.0
50500	CUT-OFF WHEEL OPER	2	1505 1102	0.4 1.6	0.0 0.0
48003	OVERHEAD CRANE OPER	2	1471 1102 1180	2.4 3.2 2.4	0.0 0.0 0.0
48002	OVERHEAD CRANE OPER	2	1471 1380 1485	3.2 4.0 0.0	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	MICELLATOR OPER	4	1494 1102	0.6 1.2	0.0 0.0
46100	INSPECTOR	2	1102 1000 1159	2.0 1.6 0.0	0.0 0.0 0.0
44300	SHAKEOUT TABLE OPER	4	1492 1485	0.0 2.0	0.0 0.0
40400	MACHINE BLASTER	4	1193 1180	0.0 2.0	0.0 0.0
40300	HAND BLASTER	2	1184 1180 1102	4.0 2.0 2.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DAN JOB NL. 4630

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NL. = 2		NO. DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-HRS	WKR. STD. DEVIATION
40201	RUTUBLAST OPERATOR	2	1194 1102	0.8 1.2	0.0 0.0
40200	RUTUBLAST OPERATOR	2	1194 1140	0.6 2.0	0.0 0.0
36700	PILOREK	8	1432 1400 1530 1334 1401	2.2 2.4 1.2 0.8 0.4	0.0 0.0 0.0 0.0 0.0
34300	MULDMASTER OPERATOR	6	1341 1375 1530	2.8 2.0 2.4	0.0 0.0 0.0
34103	FLUOK MULDER	4	1440 1432	2.4 2.0	0.0 0.0
34102	FLUOK MULDER	4	1140 1380 1400	2.4 2.2 2.4	0.0 0.0 0.0
34101	FLUOK MULDER	4	1330 1400 1474	0.4 1.2 0.4	0.0 0.0 0.0
34100	FLUOK MULDER	2	1432	2.0	0.0
33101	LACLE SKIMMER	2	1432 1360 1250 1334 1401	2.4 2.4 2.4 0.4 0.4	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 9630

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 5	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERIODS	EQUIP. CODE	NO. MEAN TIME-HRS	NO. STD. DEVIATION
33100	LADLE SKIMMER	2	1482 1530 1432 1334 1451	4.0 4.6 1.6 0.4 0.4	0.0 0.0 0.0 0.0 0.0
33002	LADLE PRE-HEATER	2	1435	0.0	0.0
33001	LADLE PRE-HEATER	2	1435 1137	0.4 1.6	0.0 0.0
33000	LADLE PRE-HEATER	2	1435 1485	7.2 0.8	0.0 0.0
32600	ARC FURNACE OPERATOR	4	1437 1435	0.0 4.4	0.0 0.0
31900	POWDER BURNER	2	1160 1102	2.2 2.0	0.0 0.0
31800	GAS BURNER	2	1160 1102	2.2 2.0	0.0 0.0
31003	ARC AIR GUUGER	2	1160 1517	0.4 1.6	0.0 0.0
31002	ARC AIR GUUGER	4	1160 1102	2.0 2.4	0.0 0.0
31001	ARC AIR GUUGER	2	1160 1159	2.0 2.4	0.0 0.0
31000	ARC AIR GUUGER	2	1160 1159 1102	4.0 2.4 4.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOC NO. 4655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 2	NO. DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PESS.	EQUIP. CODE	WKR. MEAN TIME-EHRS	WKR. STD. DEVIATION
30303	AKC MELDER/A	10	1106 1102 1100	4.0 2.0 1.2	0.0 0.0 0.0
30302	AKC MELDER/A	2	1106 1154	2.0 2.4	0.0 0.0
30301	AKC MELDER/A	4	1100 1154 1102	0.4 1.2 0.4	0.0 0.0 0.0
30300	AKC MELDER/A	10	1106 1154 1100	2.0 1.6 0.8	0.0 0.0 0.0
20100	STAND STONE GRINDER	10	1517 1102	0.4 1.0	0.0 0.0
27900	SHING GRINDER OPER	4	1512 1102	0.4 1.0	0.0 0.0
27500	PN GRINDER OPER	62	1120 1119 1115 1117 1102	1.2 1.1 1.0 1.0 0.5	0.14 0.03 0.02 0.02 0.07
26600	HELPER	6	1380 1400	7.2 5.0	0.0 0.0
26502	LABORER	2	1000	3.0	0.0
26501	LABURER	2	1435 1102 1530 1480 1380	4.0 0.0 0.0 0.0 1.0	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

SOM JOB NO. 9655

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 5	NO. DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-HRS	NUR. STD. DEVIATION
26500	LABOREK	2	1457	0.0	0.0
26410	SERVICEMAN	2	1457	0.0	0.0
26409	SERVICEMAN	4	1000 1334 1530 1481	2.0 2.0 3.0 0.4	0.0 0.0 0.0 0.0
26408	SERVICEMAN	2	1000 1334 1530 1481 1543	3.2 1.0 1.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0
26407	SERVICEMAN	2	1000 1330 1530	3.2 2.4 2.4	0.0 0.0 0.0
26406	SERVICEMAN	4	1102 1159 1194	2.4 2.4 3.2	0.0 0.0 0.0
26405	SERVICEMAN	2	1102 1159	4.0 4.0	0.0 0.0
26404	SERVICEMAN	2	1350 1530	4.0 3.2	0.0 0.0
26403	SERVICEMAN	2	1102 1334 1530	1.6 3.2 3.2	0.0 0.0 0.0
26402	SERVICEMAN	4	1143 1188	4.0 2.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NO. = 5	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-MINS	NO. STD. DEVIATION
26401	SERVILEMAN	2	1102 1180 1154 1000	4.0 1.2 2.0 0.0	0.0 0.0 0.0 0.0
26406	SERVILEMAN	2	1180 1102	4.0 4.0	0.0 0.0
20300	MURKSAYEK OPERATOR	6	1180 1102 1154	1.6 4.0 2.0	0.0 0.0 0.0
20202	FORKLIFT OPERATOR	2	1000 1432 1530 1334 1341	3.2 0.3 2.4 3.6 0.8	0.0 0.0 0.0 0.0 0.0
20201	FORKLIFT OPERATOR	2	1000 1432	7.2 0.6	0.0 0.0
20200	FORKLIFT OPERATOR	2	1000 1452 1440 1502	2.0 2.4 2.0 1.0	0.0 0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

EDN JOB NO. 9535

INPUT EQUIPMENT DATA

SIC CODE:	PLANT NO.:	DATE:
332	6	1460
EQUIP. CODE	GENERIC NAME	LOC SBA
1517	STAND STONE GRIND	30.0
1517	STAND STONE GRIND	41.0
1499	WHEELABRATOR	40.4
1483	PN VIBRATOR	105.0
1482	PN VIBRATOR	48.0
1440	FURNACE	66.0
1373	SANDMULLER	75.0
1339	MULDER	41.0
1336	SQUEZ/JOLT MOLDEK	40.0
1338	SQUEZ/JOLT MOLDEK	47.0
1338	SQUEZ/JOLT MOLDEK	42.0
1338	SQUEZ/JOLT MOLDEK	103.0
1194	KUTOBLAST	42.0
1175	HELD/ACETYLENE	60.0
1146	PN TAMPER	73.0
1146	PN TAMPER	72.0
1146	PN TAMPER	42.0
1120	PN WHEEL GRINDER	45.0
1120	PN WHEEL GRINDER	45.0
1120	PN WHEEL GRINDER	48.0
1120	PN WHEEL GRINDER	74.0
1120	PN WHEEL GRINDER	75.0
1120	PN WHEEL GRINDER	48.0
1119	PN CUNE GRINDER	45.0
1119	PN CUNE GRINDER	45.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

EQUIPMENT NOISE DATA AVERAGES (LEVEL 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	95.6	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

BBN JOB NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE	PLANT NO.	NO DATES SPECIFIED		
332	6			
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/JULT 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	RUTUBLAST	1	92.0	0.0
1339	MOLDER	1	91.0	0.0
1517	STAND STONE GRIND	3	90.3	2.08
1499	WHEELABRATOR	1	90.2	0.0
1104	BACK/PN GRINDER	1	88.0	0.0
1175	HELD/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/COMPRESSD AIR	2	74.0	4.24
1542	BACK. ONLY CONTR.	1	69.0	4.24

ENVIRONMENTAL PROTECTION AGENCY

DOE FILE NO. 9005

INPUT BACKGROUND DATA

SIC CODE:	GENERAL NAME	PLANT NO:	DATE:		
332		6	1980		
BACK. CODE	GENERAL NAME	LEQ 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/CUMPKSU AIR	77.0	1542 1.00	0 0.0	0 0.0
1543	BACK/CUMPKRSU 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	74.0	1373 0.40	1552 0.40	1440 0.20
1145	BACK/PN TAMPER	76.0	1140 0.60	1440 0.40	0 0.0
1104	BACK/PN GRIMMER	80.0	1517 0.20	1120 0.60	1194 0.20

ENVIRONMENTAL PROTECTION AGENCY

DBN JOB NO. 9655

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	334	PLANT NO:	6	DATE:	1460
JOB CODE	JOB DESCRIPTION	NO OF PERS.	TIME SPENT USING EQUIPMENT CODE		
			CODE TIME	CODE TIME	CODE TIME
429	OIL-BAKE LOREMAKER	2	1483 2.0	1551 98.0	0 0.0
422	NU-BAKE CURE OPER	1	1551 100.0	0 0.0	0 0.0
422	NU-BAKE CORE OPER	1	1543 100.0	0 0.0	0 0.0
402	RUTQBLAST OPERATOR	1	1194 15.0	1499 15.0	1104 70.0
385	MULLER OPER	1	1372 10.0 1543 10.0	1145 24.0 0 0.0	1435 56.0 0 0.0
341	FLUOR MULDER	4	1445 30.0	1435 70.0	0 0.0
340	SQUEZ/JOLT MULDER UP	2	1146 6.0 1149 28.0	153d 4.0 1435 60.0	1482 4.0 0 0.0
329	CUPOLA FURNACE OPER	2	1440 70.0	1435 30.0	0 0.0
307	ACETYLENE WELDER	1	1475 15.0	1104 50.0	1000 35.0
275	PW GRINDER OPER	1	1517 50.0	1104 50.0	0 0.0
275	PW GRINDER OPER	3	1114 15.0	1120 35.0	1104 50.0
270	FUREMAN	1	1104 20.0 1435 40.0	1175 10.0 1543 10.0	1440 20.0 0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 6	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	No. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-OHMS	NUR. STD. DEVIATION
42900	OIL-BAKE LOREMAKER	2	1483 1551	6.2 7.8	0.0 0.0
42201	NU-BAKE CURE OPER	1	1543	8.0	0.0
42200	NU-BAKE CURE OPER	1	1551	8.0	0.0
40200	KUTOGLAST OPERATOR	1	1144 1494 1104	1.2 1.2 2.6	0.0 0.0 0.0
38500	MULLER OPER	1	1372 1142 1432 1543	0.8 1.4 4.5 0.0	0.0 0.0 0.0 0.0
34100	FLUOR MULDER	4	1145 1435	2.4 2.6	0.0 0.0
34000	SQUEZ/JOLT MULDER OP	5	1140 1330 1482 1142 1432	0.5 0.3 0.3 2.1 4.8	0.0 0.0 0.0 0.0 0.0
32900	CUPOLA FURNACE OPER	2	1440 1432	2.6 2.4	0.0 0.0
30700	ACETYLENE WELDER	1	1172 1104 1000	1.2 4.0 2.8	0.0 0.0 0.0
27501	PN GRINDER OPER	3	1119 1120 1104	1.2 2.8 4.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BEN JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NO. = 6	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-MIN	NUR. STD. DEVIATION
27500	PN GRINDER OPER	1	1517 1104	4.0 4.0	0.0 0.0
27000	FUREMAN	1	1104 1175 1440 1435 1543	2.6 0.0 2.6 3.2 0.0	0.0 0.0 0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

SDN JOB NO. 9635

INPUT EQUIPMENT DATA

SIC CODE:	PLANT NO:	DATE:
332	7	1980
EQUIP. CODE	GENERAL NAME	LEW USA
1602	FORKLIFT	80.0
1602	FORKLIFT	80.0
1542	COMPRESSED AIR	94.0
1542	COMPRESSED AIR	94.0
1542	COMPRESSED AIR	94.0
1542	COMPRESSED AIR	92.0
1542	COMPRESSED AIR	97.0
1535	VENTILATION	62.0
1525	HAMMER	92.0
1517	STAND STONE GRIND	90.0
1512	SWING GRINDER	94.0
1512	SWING GRINDER	94.0
1508	CUT-OFF WHEEL	100.0
1508	CUT-OFF WHEEL	100.0
1499	WHEELAUGATOR	57.0
1492	SHAKEOUT TABLE	100.0
1492	SHAKEOUT TABLE	102.0
1492	SHAKEOUT TABLE	100.0
1486	SHAKEOUT	54.0
1486	SHAKEOUT	43.0
1486	SHAKEOUT	40.0
1457	CORE SET LINE	94.0
1451	NU-BARE CORE	76.0
1450	SMELL CORE	73.0
1443	LAULU PRE-HEAT	92.0
1443	LAULU PRE-HEAT	90.0
1442	FURNACE	68.0
1438	INDUCT. FURNACE	68.0
1438	INDUCT. FURNACE	70.0
1373	SANDMULLER	72.0
1338	SQUEZ/JULT MOLDER	40.0
1338	SQUEZ/JULT MOLDER	45.0
1338	SQUEZ/JULT MOLDER	103.0
1338	SQUEZ/JULT MOLDER	103.0
1338	SQUEZ/JULT MOLDER	100.0
1338	SQUEZ/JULT MOLDER	45.0
1334	BALK/MOLDERS	64.0
1160	HELDING/ARC	65.0

ENVIRONMENTAL PROTECTION AGENCY

EDN JUB NO. 9035

INPUT EQUIPMENT DATA

SIC CODE: 332

PLANT NO: 7

DATE: 1980

EQUIP. CODE	GENERIC NAME	LEO LCA
1160	WELDING/ARC	74.0
1160	WELDING/ARC	65.0
1160	ARC AIR GOUGERS	100.0
1160	ARC AIR GOUGERS	104.0
1144	PNEUMATIC TAMPER	47.0
1120	PN WHEEL GRINDER	45.0
1119	PN CONE GRINDER	44.0
1114	PN CONE GRINDER	44.0
1119	PN CONE GRINDER	100.0
1119	PN CONE GRINDER	47.0
1119	PN CONE GRINDER	45.0
1118	PN DISC GRINDER	101.0
1115	PN DISC GRINDER	104.0

ENVIRONMENTAL PROTECTION AGENCY

UDN JOB NO. 7000

INPUT BACKGROUND DATA

SIC CODE: 332

PLANT NO: 7

DATE: 1980

EACK. GENERAL NAME CODE		LEO DIA	EQUIPMENT CONTRIBUTION TO BACKGROUND				
			CODE CNTK.	CODE CNTK.	CODE CNTK.	CODE CNTK.	
1543	BACK/CUMPSD AIR	87.0	1542	0.40	1552	0.10	0 0.0
1543	BACK/CUMPSD AIR	89.0	1542	0.60	1544	0.40	0 0.0
1543	BACK/CUMPSD AIR	90.0	1544	0.60	1552	0.40	0 0.0
1536	BACK/VENTILATION	85.0	1552	0.40	1443	0.30	1438 0.30
1536	BACK/VENTILATION	82.0	1552	0.40	1443	0.30	1400 0.30
1506	BACK/CUTUFF WHEEL	90.0	1508	0.70	1542	0.20	1002 0.10
1506	BACK/CUTUFF WHEEL	93.0	1508	0.60	1542	0.40	0 0.0
1485	BACK/SHAKEOUT	88.0	1480	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	88.0	1480	0.80	1535	0.20	0 0.0
1485	BACK/SHAKEOUT	89.0	1480	0.60	1535	0.30	1443 0.10
1435	BACK/FURNACE	88.0	1443	0.60	1438	0.30	1535 0.10
1435	BACK/FURNACE	87.0	1552	0.30	1443	0.50	1438 0.20
1435	BACK/FURNACE	82.0	1442	0.70	1544	0.30	0 0.0
1435	BACK/FURNACE	85.0	1430	0.50	1535	0.30	1330 0.10
1159	BACK/HLD/BRN/GUG	90.0	1160	0.60	1535	0.40	0 0.0
1159	BACK/HLD/BRN/GUG	91.0	1160	0.60	1500	0.20	0 0.0
1104	BACK/PN GRINDER	90.0	1110	0.70	1535	0.30	0 0.0
1104	BACK/PN GRINDER	89.0	1110	0.70	1535	0.30	0 0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332	PLANT NO. = ?	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	PN DISC GRINDER	2	102.2	2.12
1492	SHAKEOUT TABLE	4	101.5	3.42
1508	CUT-OFF WHEEL	2	100.0	0.0
1338	SQUEZ/JOLT MOLDEK	6	99.0	3.63
1119	PN 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	PN WHEEL GRINDER	1	95.3	0.0
1542	CUMPRRESSED AIR	5	94.2	1.74
1512	SWING GRINDER	2	94.0	0.0
1450	SHELL CORE	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	5.5
1506	BACK/CUTOFF WHEEL	2	91.2	2.12
1443	LADLE PRE-HEAT	2	91.0	1.41
1159	BACK/HLD/BRN/GOOG	2	90.2	0.71
1104	BACK/PN GRINDER	2	89.5	0.71
1543	BACK/COMPRESSD 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/MOLDERS	1	84.0	0.0
1544	BACK. ONLY CONTR.	0	83.9	1.53
1536	BACK/VENTILATION	2	83.5	2.12
1166	HELDING/ARC	3	83.0	3.40
1535	VENTILATION	1	82.0	0.0
1552	BACK. ONLY CONTR.	0	73.9	1.53

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NO. 4635

EQUIPMENT NOISE DATA AVERAGES (L=4) GENERALIZED

SIC CODE = 332 PLANT NO. = 7 NO DATES SPECIFIED

EQUIP. CODE	GENERIC NAME	NU. OF SAMPLES	MEAN -EQ(DB(A)	STD. 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. 4615

INPUT PERSONNEL WORK ASSIGNMENTS

SIC CODE:	332	PLANT NO:	7	DATE: 1980				
JOB CODE	JOB DESCRIPTION	NO OF PEKS.	TIME SPENT USING EQUIPMENT CODE	CODE	TIME	CODE	TIME	CODE
505	CUT-OFF WHEEL OPER	3	1900	60.0	1104	40.0	0	0.0
467	WHEELABRATOR OPER	3	1104	40.0	1485	30.0	1534	30.0
433	CURE ROOM WORKER	7	1543	40.0	1405	30.0	1435	30.0
422	NU-BAKE CURE OPER	2	1451	2.0	1543	49.0	1536	49.0
421	SHELL CURE OPERATOR	1	1536	30.0	1405	20.0	1543	30.0
368	MELTER/PICKER	3	1438	60.0	1435	10.0	1104	10.0
			1485	10.0	1534	10.0	0	0.0
340	SQUEEZE/WHEEL MULDER UP	2	1558	15.0	1104	50.0	1454	35.0
340	SQUEEZE/WHEEL MULDER UP	3	1558	10.0	1435	40.0	0	0.0
310	ARC AIR GAUGER	2	1160	60.0	1104	40.0	0	0.0
303	ARC WELDER/A	3	1160	60.0	1104	30.0	1159	10.0
261	STAND STONE GRINDER	2	1517	60.0	1104	40.0	0	0.0
279	SWING GRINDER OPER	1	1512	60.0	1104	40.0	0	0.0
275	PIN GRINDER OPER	10	1120	30.0	1119	30.0	1104	40.0
265	LABOURER	1	1573	50.0	1435	30.0	1104	15.0
			1485	5.0	0	0.0	0	0.0
265	LABOURER	2	1435	60.0	1438	10.0	1104	10.0
			1485	10.0	1534	10.0	0	0.0

ENVIRONMENTAL PROTECTION AGENCY

DSTI JAC NO. 4032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE # 332		PLANT NO. = 7	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-DHRS	WKR. STD. DEVIATION
50500	CUT-OFF WHEEL OPER	3	1508 1104	4.8 3.2	0.0 0.0
46700	WHEELABRATOR OPER	3	1104 1409 1536	3.2 2.4 2.4	0.0 0.0 0.0
43300	CURE VACUUM WORKER	7	1543 1465 1439	3.2 2.4 2.4	0.0 0.0 0.0
42200	NO-BAKE CURE OPER	5	1491 1243 1236	4.2 3.9 3.9	0.0 0.0 0.0
42100	SHELL CURE OPERATOR	1	1536 1465 1543	2.4 1.6 4.0	0.0 0.0 0.0
36800	MELTER/PURER	3	1436 1435 1104 1465 1534	4.6 4.8 4.0 4.8 4.8	0.0 0.0 0.0 0.0 0.0
34001	SQUEZ/JULT MULDER OP	3	1338 1439	4.6 7.2	0.0 0.0
34000	SQUEZ/JULT MULDER OP	2	1336 1104 1159	4.2 4.0 2.8	0.0 0.0 0.0
31000	ARC AIR GUNGER	2	1160 1104	4.6 3.2	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 9039

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332		PLANT NO. = 7	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-HRS	NUR. STD. DEVIATION
30300	ARC WELDER/A	3	1160 1104 1159	4.8 4.4 0.6	0.0 0.0 0.0
20100	STAND STONE GRINDER	2	1017 1104	4.0 3.2	0.0 0.0
27900	SWING GRINDER OPER	1	1512 1104	4.8 3.2	0.0 0.0
27500	PN GRINDER OPER	10	1120 1114 1104	4.4 4.4 3.2	0.0 0.0 0.0
20501	LABOURER	6	1435 1435 1104 1460 1334	4.8 4.8 0.8 0.8 0.8	0.0 0.0 0.0 0.0 0.0
26500	LABOURER	1	1373 1435 1104 1460	4.0 4.4 1.2 0.4	0.0 0.0 0.0 0.0

Report 4535

Bolt Beranek and Newman Inc.

Seven Plant Average

ENVIRONMENTAL PROTECTION AGENCY

EDN 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	2.00
1492	SHAKEOUT TABLE	6	101.0	3.03
1494	SHAKEOUT TABLE	2	101.0	5.00
1437	ARC FURNACE	3	100.3	3.79
1508	CUT-OFF WHEEL	2	100.0	0.0
1338	SQUEZ/JOLT MOLDER	17	99.4	6.49
1118	PN DISC GRINDER	7	99.7	3.04
1507	CUT-OFF WHEEL	3	99.0	2.05
1482	PN VIBRATOR	3	98.7	3.06
1195	SPRALBLAST	1	98.0	0.0
1387	SANDSLINGER	2	98.0	0.0
1453	FLEXI-LO 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	4	95.5	2.12
1119	PN CONE GRINDER	14	95.4	2.21
1120	PN WHEEL GRINDER	15	95.3	2.74
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 CORE	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	CUMPRESSED AIR	6	94.6	4.70
1477	HUIST	1	94.0	0.0
1502	BAND SAW	1	94.0	0.0
1336	SHELL MULDER	3	93.7	2.52
1512	SWING 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	8	92.0	2.50
1193	ABRASIVE BLAST	1	92.0	0.0
1194	ROTUBLAST	5	92.0	3.34
1337	MI-PRESS. MOLDER	1	92.0	0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUD NO. 9635

BACKGROUND AND EQUIPMENT NOISE DATA AVERAGES (LEQ)

SIC CODE = 332	AVERAGE FOR INDUSTRY	NU. OF SAMPLES	MEAN LEQ(DBA)	NU. DATES SPECIFIED
EQUIP. CODE	GENERIC NAME			STD. 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/UPPERMD 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/CUTUFF WHEEL	6	88.6	3.06
1458	BACK/LDRE SET LIN	1	88.0	0.0
1501	BACK/SAM/METAL	2	88.0	0.0
1511	BACK/ELEC GRINDER	3	88.0	0.0
1159	BACK/WLD/BRN/GOUG	4	87.8	3.20
1373	SANDMULLER	3	87.7	11.15
1386	BACK/SANUSLINGER	3	87.3	5.03
1395	BACK/EXHAUST FAN	1	87.0	0.0
1442	FURNACE	2	87.0	1.41
1175	HELD/ACETYLENE	1	86.0	0.0
1802	FUKKLIFT	3	85.7	2.54
1498	BACK/WHEELABRATOR	2	85.5	0.71
1136	BACK/PN CHISEL	2	85.0	0.0
1188	BACK/AERASV BLAST	1	85.0	0.0
1526	BACK/HAMMER	1	85.0	0.0
1334	BACK/MOLDEERS	4	84.8	2.06
1372	BACK/MULLER	3	84.3	4.62
1543	BACK/COMPRESSD AIR	6	83.8	7.91
1435	BACK/FURNACE	19	83.5	4.66
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	HELDING/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

BON JOB NO. 9655

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.
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

BBN JUD NC. 4635

EQUIPMENT NOISE DATA AVERAGES [LEVEL 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	0	98.7	2.16
1158	WELD/BURN/GOUGING	11	98.2	3.74
1500	SAW/METAL	4	98.0	0.0
1385	SANDSLINGER	2	98.0	0.0
1333	MULVER	28	97.0	5.80
1484	SHAKER/DUMPUUT	10	97.0	3.44
1525	HAMMERING	2	96.0	5.66
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	9	93.4	1.41
1457	LURE SET LINE	2	93.2	0.0
1187	ABRASIVE BLASTING	8	93.1	3.34
1510	ELECTRIC GRINDERS	15	92.7	2.40
1371	MULVER	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	5.61

ENVIRONMENTAL PROTECTION AGENCY

EON JOB NO. 9639

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332 PLANT MUS. = 7, 6, 5, 4, 3, 2, 1,		NO. OF DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUR. MEAN TIME-BHRS	NUR. STD. DEVIATION
53400	PRESS OPERATOR	6	1102	6.0	0.0
50600	TABOR CUT-OFF SAW UP	2	1504 1102	6.4 1.6	0.0 0.0
50503	CUT-OFF WHEEL OPER	2	1507 1508 1349	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	1508 1102	5.4 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 1168	4.4 3.2 2.4	0.0 0.0 0.0
48002	OVERHEAD CRANE OPER	2	1471 1380 1489	3.2 4.0 0.8	0.0 0.0 0.0
48001	OVERHEAD CRANE OPER	2	1471 1489	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

SERIAL JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NUS. = 7, 6, 5, 4, 3, 2, 1,	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NUK. MEAN TIME-8HRS	NUK. STD. DEVIATION
48000	OVERHEAD CRANE OPER	2	1471	0.0	0.0
46703	WHEELABRATOR OPER	1	1444 1440 1444 1465	4.8 0.8 1.6 0.6	0.0 0.0 0.0 0.0
46702	WHEELABRATOR OPER	2	1494 1506	4.8 3.2	0.0 0.0
46701	WHEELABRATOR OPER	4	1499 1102	6.8 1.2	0.0 0.0
46700	WHEELABRATOR OPER	3	1104 1402 1530	3.2 2.4 2.4	0.0 0.0 0.0
46200	CUPOLA OPERATOR	1	1440 1465	2.0 2.4	0.0 0.0
46101	INSPECTOR	1	1490 1529 1520	1.6 1.6 4.0	0.0 0.0 0.0
46100	INSPECTOR	2	1102 1000 1154	5.6 1.6 0.8	0.0 0.0 0.0
45900	SHIFTER	3	1440 1438 1465	3.0 0.8 6.4	0.0 0.0 0.0
45000	DUMPOUT/SHAKEROUT OP	2	1490 1494 1465	2.0 1.6 0.8	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

EON Job No. 4630

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,		NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	WKR. STD. DEVIATION
44301	SHAKEOUT TABLE OPER	2	1494 1485 1435	3.2 1.6 3.2	0.0 0.0 0.0
44300	SHAKEOUT TABLE OPER	4	1492 1485	0.0 2.0	0.0 0.0
44002	SHAKEOUT OPERATOR	4	1400 1485	4.0 3.2	0.0 0.0
44001	SHAKEOUT OPERATOR	2	1486 1501	0.4 1.6	0.0 0.0
44000	SHAKEOUT OPERATOR	8	1400 1372 1390	4.0 1.6 2.4	0.0 0.0 0.0
43301	CURE ROOM WORKER	17	1452 1444	2.4 2.0	0.0 0.0
43300	CURE ROOM WORKER	7	1543 1465 1435	3.2 2.4 2.4	0.0 0.0 0.0
42900	OIL-BAKE COKEMAKER	2	1483 1551	0.2 7.8	0.0 3.0
42700	CURE GLUEK	1	1450 1334	1.6 0.4	0.0 0.0
42600	CURE SETTER	3	1454 1485	0.4 1.6	0.0 0.0
42203	NU-BAKE CURE OPER	5	1451 1449	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DOA Job No. 9635

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332
 PLANT NUS. = 7, 6, 5, 4, 3, 2, 1,
 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME=0HRS	NO. STD. DEVIATION
42204	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 1543 1536	0.2 3.9 3.9	0.0 0.0 0.0
42104	SHELL CURE OPERATOR	1	1450 1334	2.0 2.4	0.0 0.0
42103	SHELL CURE OPERATOR	5	1450 1449	4.0 4.0	0.0 0.0
42104	SHELL CURE OPERATOR	4	1450 1154	4.0 4.0	0.0 0.0
42101	SHELL CURE OPERATOR	5	1450 1372	2.6 2.4	0.0 0.0
42100	SHELL CURE OPERATOR	1	1530 1482 1543	2.4 1.6 4.0	0.0 0.0 0.0
40500	SPIRALBLAST OPERATOR	1	1195 1435 1485	3.2 2.4 2.4	0.0 0.0 0.0
40400	MACHINE BLASTER	4	1193 1188	0.0 2.0	0.0 0.0
40300	HAND BLASTER	2	1189 1188 1102	4.0 2.0 2.0	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DON JOB NO. 4035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332 PLANT NUS. = 7, 6, 5, 4, 3, 2, 1,		NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-8HRS	WKR. STD. DEVIATION
40204	RUTOBLAST OPERATOR	1	1194 1501	2.4 5.6	0.0 0.0
40203	RUTOBLAST OPERATOR	2	1194 1372	4.0 2.4	0.0 0.0
40202	RUTOBLAST OPERATOR	2	1194 1102	6.8 1.2	0.0 0.0
40201	RUTOBLAST OPERATOR	2	1194 1186	6.0 2.0	0.0 0.0
40206	RUTOBLAST OPERATOR	1	1194 1449 1104	1.2 1.2 5.6	0.0 0.0 0.0
38500	SANDSLINGER OPERATOR	2	1387 1136 1485 1494	1.2 2.4 3.2 1.2	0.0 0.0 0.0 0.0
38800	SANDMULLER OPERATOR	1	1373 1136 1491	6.4 0.8 0.0	0.0 0.0 0.0
38504	MULLER OPER	1	1374 1334	4.8 3.2	0.0 0.0
38503	MULLER OPER	1	1374 1485	3.6 2.4	0.0 0.0
38502	MULLER OPER	1	1374 1501	3.0 2.4	0.0 0.0
38504	MULLER OPER	1	1374 1372 1395	4.0 1.6 2.4	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

EPA JOB NO. 9032

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	NUK. MEAN TIME-BHRS	NUK. STD. DEVIATION
38500	MULLER OPER	1	1372 1145 1435 1545	0.8 1.9 4.5 0.0	0.0 0.0 0.0 0.0
38801	MELTER/PUUREK	6	1438 1372 1345	4.0 1.6 2.4	0.0 0.0 0.0
36800	MELTER/PUUREK	3	1438 1435 1104 1485 1334	4.0 0.8 0.8 0.8 0.0	0.0 0.0 0.0 0.0 0.0
36704	PUUREK	6	1440 1438 1485	2.4 2.4 3.2	0.0 0.0 0.0
36703	PUUREK	2	1440 1501 1435	1.0 5.6 0.8	0.0 0.0 0.0
36702	PUUREK	2	1440 1485 1435	1.6 5.6 0.8	0.0 0.0 0.0
36701	PUUREK	4	1437 1435 1485	3.2 3.2 1.6	0.0 0.0 0.0
36700	PUUREK	8	1435 1485 1535 1334 1481	3.2 2.4 1.2 0.8 0.4	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DOE JUD No. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,		NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-BHRS	WKR. STD. DEVIATION
35000	MULD WASH WORKER	1	1337 1491 1130	1.6 1.6 4.0	0.0 0.0 0.0
34300	MULDMASTER OPERATOR	6	1341 1375 1530	2.8 2.6 2.4	0.0 0.0 0.0
34200	PACEMAKER MULDR OPER	1	1340 1430 1485	3.2 1.6 3.2	0.0 0.0 0.0
34103	FLOOR MULDER	2	1140 1501 1402	1.0 5.0 0.0	0.0 0.0 0.0
34104	FLOOR MULDER	4	1140 1435	2.4 5.0	0.0 0.0
34103	FLOOR MULDER	4	1140 1300 1485	2.4 3.2 2.4	0.0 0.0 0.0
34104	FLOOR MULDER	4	1380 1485 1471	0.4 1.2 0.4	0.0 0.0 0.0
34101	FLOOR MULDER	2	1435	0.0	0.0
34100	FLOOR MULDER	4	1140 1435	2.4 5.0	0.0 0.0
34004	SQUEZ/JULT MULDER OP	18	1330 1334	5.0 2.4	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DOD JUG NO. 7030

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332	PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. OF MEAN TIME-BHRS	NO. STD. DEVIATION
34003	SQUEEZ/JOLT MULDER OP	7	1330 1372	2.6 2.4	0.0 0.0
34004	SQUEEZ/JOLT MULDER OP	5	1140 1330 1482 1142 1435	0.5 0.3 0.3 2.1 4.8	0.0 0.0 0.0 0.0 0.0
34001	SQUEEZ/JOLT MULDER OP	3	1330 1432	0.8 7.2	0.0 0.0
34000	SQUEEZ/JOLT MULDER OP	2	1330 1104 1154	1.4 4.0 2.0	0.0 0.0 0.0
33901	AUTO-MULDER OPERATOR	2	1332 1334	0.4 1.0	0.0 0.0
33900	AUTO-MULDER OPERATOR	2	1330 1372	0.4 1.6	0.0 0.0
33800	SHELLMULDER OPERATOR	4	1330 1500	4.0 4.0	0.0 0.0
33700	HI PRESS. MULDER OP	2	1337 1500 1140 1392 1491	4.0 1.0 0.4 0.4 0.8	0.0 0.0 0.0 0.0 0.0
33101	LADLE SKimmer	2	1432 1380 1530 1334 1461	2.4 2.4 2.4 0.4 0.4	0.0 0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

SUN JUN 14 1972

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332 PLANT NUS. = 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
33100	LADLE SKIMMER	2	1485 1530 1439 1354 1481	4.0 1.6 1.0 0.4 0.4	0.0 0.0 0.0 0.0 0.0
33002	LADLE PRE-HEATER	2	1435	6.0	0.0
33001	LADLE PRE-HEATER	2	1435 1137	0.4 1.0	0.0 0.0
33000	LADLE PRE-HEATER	2	1435 1469	7.2 0.8	0.0 0.0
32900	CUPOLA FURNACE OPER	2	1440 1439	5.6 2.4	0.0 0.0
32800	FURNACE CHARGER	1	1440 1438 1482	2.4 2.4 3.2	0.0 0.0 0.0
32701	INDUCT. FURNACE OPER	1	1438 1439	5.6 2.4	0.0 0.0
32700	INDUCT. FURNACE OPER	2	1438 1159	4.8 3.2	0.0 0.0
32600	ARC FURNACE OPERATOR	5	1437 1439	5.8 2.2	0.30 0.30
32500	FURNACE OPERATOR	4	1446 1445 1469	4.8 1.6 1.6	0.0 0.0 0.0
31900	PUMPER BURNER	2	1160 1102	5.2 2.8	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

SIC Job No. 4632

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332
 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,
 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WKR. MEAN TIME-6HRS	WKR. STD. DEVIATION
31600	GAS BURNER	2	1160 1102	5.2 2.8	0.0 0.0
31004	ARC AIR GUUGER	2	1160 1517	0.4 1.6	0.0 0.0
31003	ARC AIR GUUGER	4	1160 1102	3.6 2.4	0.0 0.0
31002	ARC AIR GUUGER	4	1160 1154	3.6 2.4	0.0 0.0
31001	ARC AIR GUUGER	4	1160 1154 1102	4.0 2.9 1.0	0.0 0.0 0.0
31000	ARC AIR GUUGER	2	1160 1104	4.0 3.2	0.0 0.0
30700	ACETYLENE WELDER	1	1172 1104 1000	1.2 4.0 2.0	0.0 0.0 0.0
30304	ARC WELDER/A	10	1160 1102 1160	4.8 2.0 1.2	0.0 0.0 0.0
30303	ARC WELDER/A	2	1160 1154	5.0 2.4	0.0 0.0
30302	ARC WELDER/A	4	1160 1154 1102	5.4 1.2 0.4	0.0 0.0 0.0
30301	ARC WELDER/A	10	1160 1154 1160	5.6 1.0 0.8	0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

EPA JOB NO. 4055

PERSONNEL HOUR ASSIGNMENT AVERAGES

SIC CODE = 332
PLANT NOS. = 7, 6, 5, 4, 3, 2, 1,

NO DATES SPECIFIED

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

ENVIRONMENTAL PROTECTION AGENCY

BNB JUD NO. 4632

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332
 PLANT NOS. = 7, 6, 5, 4, 3, 2, 1, NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	NO. MEAN TIME-OHRS	NO. STD. DEVIATION
27906	SWING GRINDER OPER	3	1512 1511	2.6 2.4	0.0 0.0
27901	SWING GRINDER OPER	4	1512 1102	2.4 2.6	0.0 0.0
27900	SWING GRINDER OPER	1	1512 1104	4.6 3.2	0.0 0.0
27600	PN CURE GRINDER OPER	3	1114 1506 1395	4.0 3.2 0.8	0.0 0.0 0.0
27700	PN DISC GRINDER OPER	4	1110 1506 1395	4.0 3.2 0.8	0.0 0.0 0.0
27600	PN DRILL GRINDER OP	1	1117 1520	0.4 1.0	0.0 0.0
27503	PN GRINDER OPER	6	1120 1506 1395	4.0 3.2 0.8	0.0 0.0 0.0
27502	PN GRINDER OPER	62	1120 1114 1110 1117 1102	1.5 1.1 1.0 1.0 3.5	0.14 0.35 0.25 0.25 0.75
27501	PN GRINDER OPER	1	1517 1104	4.0 4.0	0.0 0.0
27500	PN GRINDER OPER	13	1120 1114 1104	2.5 2.1 3.4	0.18 0.53 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

DDN SUB NU. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 1	NO DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	LEVEL N.C.	LEV. MT. PUP. MEAN	N.C.
17300	GRADER/PLANER MILL	16	92.1	92.1	117	117
16700	PLANER OPERATOR	8	93.3	93.3	67	67
13400	EDGEK OPERATOR	4	97.1	97.7	48	51
21300	MILLKIGHT/PLANER	3	99.4	100.5	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 SAHYER	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	29	25
20100	LUMBER CARRIER OPER	8	86.0	88.0	24	33
22800	ELECTRICIANS	5	88.8	85.8	23	23
26100	CLEAN-UP MAN/REGULAR	2	96.6	100.5	23	32
21100	MILLKIGHT/GENERAL	4	94.3	95.4	20	45
24800	POWERHOUSE OPERATOR	12	93.1	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	85.4	12	12
15400	STACKER-GREEN	4	86.0	85.0	12	12
19100	SPECIALTY RESAW OFFB	2	90.0	91.4	11	13
12300	SAHYER	4	85.5	85.5	11	11
10100	SAHMILL SUPERVISOR	3	87.2	87.2	11	11
19700	MOULDER OFFBEARER	2	89.0	89.0	9	9
23600	PIPE-FITTERS	2	86.2	85.2	8	8
16100	UNSTACKER-DRY	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	STICKEMAN-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	86.0	86.0	1	1
20700	RAILCAR LOADER	9	76.5	77.2	0	1
16200	UNSTACKER PULLER	2	<75.0	<75.0	0	0
11400	DEBARCKER OPERATOR	2	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

SDN JLD NO. 463

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE *	242	PLANT NO. =	1	NU DATES SPECIFIC			
JOB CODE	JOB DESCRIPTION	NU. OF PEKS.	NOISE LEVEL	L _{AV} MEAN	H.C.	WT. MEAN	H.C.
10700	POND SURTER	4	<75.0	<75.0		0	0
10800	LOG SURTER	2	<75.0	<75.0		0	0
16000	KILN OPERATOR	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	FILERS	6	<75.0	<75.0		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 = 242

PLANT NO. = 1

NU DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	H.C.
13700	CHIPPER OPERATOR	2	99.5	103.7	3.75
16800	PLANER SET-UP MAN	2	97.7	98.5	2.92
13400	EDGER OPERATOR	4	96.4	97.0	2.44
16700	PLANER OPERATOR	8	93.3	93.3	1.58
21300	MILLWRIGHT/PLANER	3	92.7	93.9	1.46
26100	CLEAN-UP MAN/REGULAR	2	92.6	95.4	1.44
17300	GRADER/PLANER MILL	16	92.0	92.0	1.33
14801	TRIMMER OPERATOR	4	90.0	90.0	1.00
14000	KESAH OPERATOR	2	<90.0	<90.0	0.99
10400	PLANER SUPERVISOR	4	<90.0	<90.0	0.87
2700	TAIL SAHFER	4	<90.0	<90.0	0.61
23800	PIPE-FITTERS	2	<90.0	<90.0	0.31
23300	CARPENTERS	4	<90.0	<90.0	0.31
22800	ELECTRICIANS	5	<90.0	<90.0	0.24
11700	DECK SCALER	2	<90.0	<90.0	0.21
10100	SAWILL SUPERVISOR	3	<90.0	<90.0	0.20
10700	POND SORTER	4	<90.0	<90.0	0.00
10800	LOG SURTER	2	<90.0	<90.0	0.00
11100	LOG CARRIER OPER	1	<90.0	<90.0	0.00
11400	DEBAKKER OPERATOR	2	<90.0	<90.0	0.00
12300	SAHFER	4	<90.0	<90.0	0.00
14500	GREEN CHAIN OPERATOR	4	<90.0	<90.0	0.00
14800	TRIMMER OPERATOR	4	<90.0	<90.0	0.00
15100	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00
15400	STACKER-GREEN	4	<90.0	<90.0	0.00
15500	STICKERMAN-GREEN	2	<90.0	<90.0	0.00
15600	UNIPAC OPERATOR	2	<90.0	<90.0	0.00
16000	KILN OPERATOR	3	<90.0	<90.0	0.00
16100	UNSTACKER-DRY	2	<90.0	<90.0	0.00
16200	UNSTACKER PULLER	2	<90.0	<90.0	0.00
17600	DRY CHAIN PULLER	20	<90.0	<90.0	0.00
17900	BANDER OPERATOR	3	<90.0	<90.0	0.00
18100	CHECKERS	6	<90.0	<90.0	0.00
19000	SPECIALTY KESAH OPER	2	<90.0	90.6	0.00
19100	SPECIALTY KESAH OFFICE	2	<90.0	91.4	0.00
19600	MOULDER FEEDER	2	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

DOC 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	PLANT NO.	NU DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	H.C.	DAILY NOISE DOSE MEAN	H.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/GENEKAL	4	<90.0	<90.0	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

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

PERSONNEL NOISE EXPUSURE AND IMPACT AVERAGES

EPA CRITERIA

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

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN SOUND	LEVEL N.C.	LEV. MEAN	H.T. MEAN	PUP. N.C.
173	GRADER/PLANER MILL	16	92.1	92.1	117	117	
167	PLANER OPERATOR	8	93.3	93.3	67	67	
134	EDGER 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	96.6	100.5	23	32	
211	MILLWRIGHT/GENERAL	4	84.3	86.4	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	86.0	86.0	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	85.0	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	DEBARKEK 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 PERS.	MEAN SOUND LEVEL N.C.	LEV. WT. PUP. MEAN N.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 (N.C.) 176
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 53
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (N.C.) 61
LEVEL WEIGHTED POPULATION (MEAN) 768.6
LEVEL WEIGHTED POPULATION (N.C.) 878.7

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. = L	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN SOUND LEVEL H.C.	DAILY NOISE DOSE MEAN H.C.	
137	CHIPPER OPERATOR	2	99.5	103.7	3.75
168	PLANER SET-UP MAN	2	97.7	93.5	2.92
134	EDGER OPERATOR	4	96.4	97.0	2.44
167	PLANER OPERATOR	8	93.3	93.3	1.58
213	MILLWRIGHT/PLANER	3	92.7	93.9	1.46
261	CLEAN-UP MAN/REGULAR	2	92.6	96.4	1.44
173	GRADER/PLANER MILL	16	92.0	92.0	1.33
140	RESAW OPERATOR	2	<90.0	<90.0	0.99
104	PLANER SUPERVISOR	4	<90.0	<90.0	0.87
127	TAIL SAWYER	4	<90.0	<90.0	0.61
148	TRIMMER OPERATOR	8	<90.0	<90.0	0.50
238	PIPE-FITTERS	2	<90.0	<90.0	0.31
233	CARPENTERS	4	<90.0	<90.0	0.31
228	ELECTRICIANS	5	<90.0	<90.0	0.24
117	DECK SCALER	2	<90.0	<90.0	0.21
101	SAWMILL SUPERVISOR	3	<90.0	<90.0	0.20
107	POND SORTER	4	<90.0	<90.0	0.00
108	LOG SORTER	2	<90.0	<90.0	0.00
111	LOG CARRIER OPER	1	<90.0	<90.0	0.00
114	DEBARKER OPERATOR	2	<90.0	<90.0	0.00
123	SAWYER	4	<90.0	<90.0	0.00
145	GREEN CHAIN OPERATOR	4	<90.0	<90.0	0.00
151	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00
154	STACKER-GREEN	4	<90.0	<90.0	0.00
155	STICKERMAN-GREEN	2	<90.0	<90.0	0.00
156	UNIPAC OPERATOR	2	<90.0	<90.0	0.00
160	KILN OPERATOR	3	<90.0	<90.0	0.00
161	UNSTACKER-DRY	2	<90.0	<90.0	0.00
162	UNSTACKER PULLER	2	<90.0	<90.0	0.00
176	DRY CHAIN PULLER	20	<90.0	<90.0	0.00
179	BANDER OPERATOR	3	<90.0	<90.0	0.00
181	CHECKERS	6	<90.0	<90.0	0.00
190	SPECIALTY RESAW OPER	2	<90.0	90.8	0.00
191	SPECIALTY RESAW OFFER	2	<90.0	91.4	0.00
196	MOULDER FEEDER	2	<90.0	<90.0	0.00
197	MOULDER OFFBEARER	2	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

DBN 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. = L NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	STDEV	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE STDEV
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	HILLBRIGHT/GENERAL	4	<90.0	95.9	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 (STDEV) = 45

ENVIRONMENTAL PROTECTION AGENCY

BBN JUD NU. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 1	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN R.L.	MEAN L.J.	NO. OF PERS.	PRIORITY INDEX	MUR 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	HEADRIG	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	EDGER	2	99.5	100.2	18	5.5	0.031
1796	POWERHOUSE	1	82.0	82.0	12	4.6	0.026
1690	KILM 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	KILM CHAIN CONVYR	1	82.0	82.0	11	3.2	0.018
1626	HEADRIG	1	88.0	88.0	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	KILM CHAIN CONVYR	1	86.0	86.0	2	2.0	0.011
1692	KILM CHAIN CONVYR	1	88.0	88.0	2	2.0	0.011
1762	RESAH-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	RESAH-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	RESAH-LARGE	1	93.0	93.0	2	1.7	0.010
1627	HEADRIG	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	104.5	2	0.7	0.004
1751	STACK BANDER	1	76.0	76.0	3	0.6	0.003
1635	EDGER	2	41.0	96.4	4	0.5	0.003

ENVIRONMENTAL PROTECTION AGENCY

B6M JUB NO. 963

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE =	242	PLANT NO. =	L	NU DATES SPECIFIE		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	H.C. LJ	NO. OF PERS.	PRIORITY N INDEX P
1622	HEADRIG	1	83.0	83.0	4	0.4 0.1
1646	RESAW-LARGE	1	88.0	88.0	2	0.3 0.1
1783	CHIPPER	2	91.0	92.4	4	0.1 0.1
1726	MOULDER/ENCL	1	78.0	78.0	2	0.0 0.1

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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. = I	NO DATES SPECIFIED				
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN W.C.	NO.OF PERS.	PRIORITY INDEX	NORM. P.I.
1702	PLANER	3	109.3	110.5	29	11.3 0.307
1716	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	Job. 0.098
1636	EDGER	2	94.5	100.2	4	3.1 0.083
1635	EDGER	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

BBN JOB NO. 4635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 1	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN L.J.	M.C. L.J.	NO.OF PERS.	PRIORITY INDEX	MORN. P.I.
1699	PLANER	7	99.4	102.1	150	36.9	0.210
1739	DRY CHAIN	4	82.5	85.5	29	20.6	0.117
1620	HEADKID	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	85.0	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	MULDER	4	90.0	90.0	0	4.0	0.013
1759	RESAW/SPECIALTY	9	89.0	91.2	4	4.0	0.023
1779	CHIPPER	4	97.0	101.5	8	3.8	0.022
1749	STAK BANDER	2	79.0	79.0	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	90.0	90.1	27	1.6	0.009
1808	LOG CARRIER	1	90.0	90.0	1	1.0	0.006
1798	SAHMILL OFFICE	1	70.0	70.0	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

DDN JJB NO. 4632

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	H.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1699	PLANER	7	99.4	102.1	105	29.0	0.784
1779	CHIPPER	4	97.0	101.5	8	4.0	0.108
1629	EDGER	4	95.3	96.4	8	4.0	0.108

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 2

ENVIRONMENTAL PROTECTION AGENCY

BBN Job No. 9639

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 2	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE MEAN	LEVEL MEAN	LEV. WT. PUP. MEAN
17300	GRADER/PLANER MILL	8	92.0	92.0	57
13400	EDGER OPERATOR	6	93.0	93.7	48
21100	MILLWRIGHT/GENERAL	5	92.7	92.7	39
16700	PLANER OPERATOR	4	93.8	94.2	35
17600	DRY CHAIN PULLER	14	84.6	85.7	33
21900	MACHINISTS	5	90.8	90.8	31
13700	CHIPPER OPERATOR	2	94.4	101.2	29
12300	SAWYER	4	91.6	91.6	27
20200	FORKLIFT OPERATOR	5	89.4	89.4	25
22800	ELECTRICIANS	3	93.0	93.0	24
12800	QUADSAM TAIL SAWYER	2	97.0	97.0	24
14800	TRIMMER OPERATOR	2	95.0	95.0	19
14300	UNSCRAMBLE OPERATOR	2	93.0	93.0	16
10100	SAWMILL SUPERVISOR	2	92.7	92.7	15
24500	OILER	2	92.7	92.7	15
13300	SLAB GUARD PULLER	2	92.5	93.2	15
16100	UNSTACKER-DRY	2	88.6	88.6	9
16500	RIPSAW OPERATOR	1	94.0	94.0	9
26100	CLEAN-UP MAN/REGULAR	1	93.0	93.0	8
23300	CARPENTERS	1	93.0	93.0	8
18600	RIPSAW OFFBEARER	1	92.0	92.0	7
15401	STACKER-GREEN	2	87.0	89.5	7
15400	STACKER-GREEN	2	88.0	93.8	0
15500	STICKERMAN-GREEN	2	85.2	85.2	5
23800	PIPE-FITTERS	1	89.3	89.3	5
26500	LABORER	1	89.1	89.1	5
17900	BANDER OPERATOR	2	85.0	89.0	4
20100	LUMBER CARRIER OPER	3	83.0	84.4	4
24800	POWERHOUSE OPERATOR	3	83.0	84.4	4
19600	MOULDER FEEDER	1	88.7	88.7	4
14500	GREEN CHAIN OPERATOR	2	84.0	85.4	4
15900	TRANSFER OPERATOR	2	82.4	82.4	2
24400	FILERS	7	78.7	81.7	2
16000	KILN OPERATOR	1	84.3	84.3	2
11401	DEBARKER OPERATOR	2	77.0	78.4	0
13100	GANG SAW OPERATOR	2	77.0	77.0	0
19700	MOULDER OFFBEAREK	1	77.5	78.2	0
11400	DEBARKER OPERATOR	2	76.1	77.2	0
15100	GREEN CHAIN PULLER	2	76.0	76.0	0
14000	KESAH OPERATOR	2	75.0	75.0	0

ENVIRONMENTAL PROTECTION AGENCY

BON 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 PEPS.	STUND MEAN	LEVEL H.C.	LEV. MEAN	WT. H.C.	PUP. H.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	

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. = C	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	H.C.	DAILY NOISE DOSE MEAN H.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
26100	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/PLANER MILL	8	92.0	92.0	1.32 1.32
18600	RIPSAW OFFBEARER	1	92.0	92.0	1.32 1.32
10100	SAHMILL SUPERVISOR	2	91.7	91.7	1.27 1.27
21100	MILLRIGHT/GENERAL	5	91.7	91.7	1.27 1.27
24500	UILEK	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	LABOURER	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	PLANER 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	<93.0	0.00 0.0
17900	BANDER OPERATOR	2	<90.0	<90.0	0.00 0.0

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9632

PERSONNEL NOISE EXPOSURE AND IMPACT

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

SIC CODE = 242

PLANT NO. = 2

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	W.C.	MEAN	W.C.
19700	MOULDER OFFBEARER	1	<90.0	<90.0	0.00	0.0
20100	LUMBER CARRIER OPER	3	<90.0	<90.0	0.00	0.0
20200	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00	0.0
20700	RAILCAR LOADER	2	<90.0	<90.0	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

ENVIRONMENTAL PROTECTION AGENCY

BON SUB NO. 4632

PERSONNEL NOISE EXPUSURE AND IMPACT AVERAGES

EPA CRITERIA

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

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SJUND MEAN	LEVEL H.C.	L-V. MEAN	PUP. H.C.
173	GRADER/PLANER 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	PLANER OPERATOR	4	93.8	94.2	35	36
176	DRY CHAIN PULLER	4	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	SAHYER	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 SAHYER	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	SAHMILL SUPERVISUR	2	92.7	92.7	15	15
245	UILER	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	88.6	88.6	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	KIPSAW OFFBEARER	1	92.0	92.0	7	7
155	STICKERMAN-GREEN	2	89.2	89.2	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	88.7	88.7	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	KILM OPERATOR	1	84.3	84.3	2	2
114	DEBARKER OPERATOR	4	76.6	77.8	0	0
131	GANG SAH OPERATOR	2	77.0	77.0	0	0
197	MOULDER OFFBEARER	1	77.5	75.4	0	0
151	GREEN CHAIN FULLER	2	76.0	76.0	0	0
140	RESAH OPERATOR	2	<75.0	<75.0	0	0
207	RAILLAR LOADER	2	<75.0	<75.0	0	0
223	MECHANICS	1	<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. =	2	NO DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN SOUND LEVEL H.C.	LEV. WT. MEAN	PUP. H.C.	
107	POND SURTER	2	<75.0	<75.0	0	

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

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4639

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. = C	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SUUND LEVEL MEAN	DAILY NOISE DOSE MEAN	H.C.
137	CHIPPER OPERATOR	2	97.7	99.2	2.93
128	QUADSAW TAIL SAWYER	2	97.0	97.0	2.64
148	TRIMMER OPERATOR	2	95.0	95.0	2.00
185	KIPSAW OPERATOR	1	94.0	94.0	1.74
134	EDGER OPERATOR	6	93.0	93.7	1.52
143	UNSCRAMBLE OPERATOR	2	93.0	93.0	1.52
261	CLEAN-UP MAN/REGULAR	1	93.0	93.0	1.52
133	SLAB BOARD PULLER	2	92.5	93.2	1.41
228	ELECTRICIANS	3	92.1	92.1	1.34
233	CARPENTERS	1	92.1	92.1	1.34
173	GRADER/PLANER MILL	8	92.0	92.0	1.32
186	KIPSAW OFFBEARER	1	92.0	92.0	1.32
101	SAWMILL SUPERVISOR	2	91.7	91.7	1.27
211	MILLRIGHT/GENERAL	5	91.7	91.7	1.27
245	OILER	2	91.7	91.7	1.27
219	MACHINISTS	5	<90.0	<90.0	0.88
123	SAWYER	4	<90.0	<90.0	0.68
265	LABURER	1	<90.0	<90.0	0.60
238	PIPE-FITTERS	1	<90.0	<90.0	0.52
196	MOULDER FEEDER	1	<90.0	<90.0	0.40
167	PLANER OPERATOR	4	<90.0	<90.0	0.26
161	UMSTACKER-DRY	2	<90.0	<90.0	0.23
107	POND SORTER	2	<90.0	<90.0	0.00
114	DEBARKER OPERATOR	4	<90.0	<90.0	0.00
131	GANG SAW OPERATOR	2	<90.0	<90.0	0.00
140	RESAW OPERATOR	2	<90.0	<90.0	0.00
145	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00
151	GREEN CHAIN PULLER	2	<90.0	<90.0	0.00
154	STACKER-GREEN	4	<90.0	94.2	0.00
155	STICKERMAN-GREEN	2	<90.0	<90.0	0.00
159	TRANSFER OPERATOR	2	<90.0	<90.0	0.00
160	KILM OPERATOR	1	<90.0	<90.0	0.00
176	DRY CHAIN PULLER	14	<90.0	<90.0	0.00
179	BANDER OPERATOR	2	<90.0	<90.0	0.00
197	MOULDER OFFBEAREK	1	<90.0	<90.0	0.00
201	LUMBER CARRIER OPER	3	<90.0	<90.0	0.00

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. = 4	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	H.C.
202	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00
207	RAILCAR LOADER	2	<90.0	<90.0	0.00
223	MECHANICS	1	<90.0	<90.0	0.00
244	FILEKS	7	<90.0	<90.0	0.00
248	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00

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

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 2		NU DATES SPECIFIED				
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	H.C. L.J.	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.	
1741	DRY CHAIN CONVEYR	3	85.0	87.0	24	13.2	0.118	
1822	QUADSAM	1	90.0	90.0	72	11.1	0.099	
1716	PLANER/ENCL	2	92.0	92.0	21	8.5	0.076	
1623	HEADRIG	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	5.1	0.054	
1690	KILN CHAIN CONVYR	3	97.0	95.5	7	5.3	0.047	
1831	GANG SAM	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	74.4	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	92.0	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	QUADSAM	1	97.0	97.0	2	2.0	0.018	
1692	KILN CHAIN CONVYR	2	87.0	89.8	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	RIPSAH-SPECIALTY	1	92.0	92.0	1	1.0	0.009	
1851	RIPSAH-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			NU DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.	
1602	DEBARKER	2	74.0	74.0	2	0.4	0.004	
1617	CUT-UFF SAM	1	75.8	75.8	11	0.3	0.002	
1830	GANG SAM	1	77.0	77.0	2	0.2	0.002	
1727	MOULDER/ENCL	1	81.0	81.0	1	0.1	0.001	
1622	HEADKID	1	84.0	84.0	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

BOM JUB 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	NJ DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1716	PLANER/ENCL	2	92.0	92.0	13	8.2	0.205
1638	EDGER	3	93.0	94.0	19	5.8	0.146
1822	QUADSAW	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 SAW	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	QUADSAW	1	97.0	97.0	2	2.0	0.050
1637	EDGER	3	93.0	94.0	6	1.8	0.045
1702	PLANER	2	108.5	109.2	5	1.5	0.038
1784	CHIPPER	10	104.8	106.6	2	1.3	0.033
1623	HEADKIG	1	93.0	93.0	22	1.0	0.026
1851	RIPSAW-SPECIALTY	1	94.0	94.0	1	1.0	0.025
1853	RIPSAW-SPECIALTY	1	92.0	92.0	1	1.0	0.025
1711	PLANER/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

BBN SUB NU. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242		PLANT NU. = 2		NU DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NU OF UNITS	MEAN L _A	MEAN L _D	NU OF PERS.	PRIORITY INDEX	NUHM. P.I.
1699	PLANER	0	90.0	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	93.0	35	10.3	0.092
1688	KILN CHAIN	7	88.3	93.0	40	9.9	0.088
1620	HEADRIG	2	91.0	91.0	44	7.7	0.069
1828	GANG SAW	2	77.0	77.0	23	5.3	0.048
1679	GREEN CHAIN	3	81.3	82.7	8	4.7	0.042
1800	FORKLIFT	1	90.0	90.0	6	4.6	0.041
1600	UEBAKKER	4	75.5	76.5	15	4.0	0.036
1664	TRIMMER	3	93.7	93.7	4	4.0	0.036
1644	KESAN/LARGE	2	74.0	74.0	13	3.3	0.029
1792	POWERHOUSE	1	90.0	90.0	4	3.0	0.017
1810	LUMBER CARRIER	2	63.0	84.4	3	3.0	0.027
1749	STACK BANUEK	2	61.0	81.0	7	2.4	0.021
1724	MOULDER	0	64.7	85.4	3	2.0	0.018
1848	KIP SAW/SPECIALTY	4	88.0	88.0	2	2.0	0.018
1774	CHIPPER	13	101.5	104.1	5	1.8	0.016
1813	TRANSFER CARRIER	1	60.0	80.0	3	0.6	0.005
1610	CUT-UFF	2	64.4	84.4	11	0.3	0.002
1685	KILN	1	65.0	85.0	1	0.1	0.001

ENVIRONMENTAL PROTECTION AGENCY

BBN SUB NÜ. 9632

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	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	H.C. L.J.	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1629	EDGER	8	92.9	93.0	29	10.1	0.253
1699	PLANER	6	96.8	97.2	23	4.4	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
1774	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. 9635

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 N.C.	LEV. MEAN	WT. POP.	N.C.
15100	GREEN CHAIN PULLER	12	95.0	95.0	119	119	
16700	PLANER OPERATOR	3	106.6	106.6	74	74	
17300	GRAUER/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	RESAM 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	EDGER 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/REGULAK	1	91.3	91.3	6	6	
26500	LABUREK	1	88.4	89.7	4	5	
12300	SAHYER	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. = 3	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN SOUND LEVEL M.C.	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE M.L.
16700	PLANER OPERATOR	3	105.0	105.0	7.95
17300	GRADER/PLANER MILL	6	90.0	90.0	2.30
14800	TRIMMER OPERATOR	3	95.0	95.0	2.18
14000	RESAW OPERATOR	3	95.4	95.4	2.10
15100	GREEN CHAIN PULLER	12	95.0	95.0	2.00
14400	LUMBER DIVERTER	3	94.6	94.6	1.90
10100	SAWMILL SUPERVISOR	3	93.4	93.4	1.59
10400	PLANER SUPERVISOR	3	93.4	93.4	1.59
21200	MILLWRIGHT/SAWMILL	3	93.3	93.3	1.57
14801	TRIMMER OPERATOR	3	93.2	93.2	1.57
13400	EDGER OPERATOR	3	92.6	92.6	1.44
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.46
21300	MILLWRIGHT/PLANER	3	<90.0	<90.0	0.76
26500	LABOKER	1	<90.0	<90.0	0.45
11400	DEBARKER OPERATOR	3	<90.0	<90.0	0.00
12300	SAWYER	3	<90.0	<90.0	0.00
15400	STACKER-GREEN	3	<90.0	94.5	0.00
15500	STICKERMAN-GREEN	3	<90.0	<90.0	0.21
17600	DRY CHAIN PULLER	12	<90.0	91.7	0.00
18200	TALLYMEN	3	<90.0	<90.0	0.00
20200	FORKLIFT OPERATOR	8	<90.0	<90.0	0.00
20700	RAILCAR LOADER	2	<90.0	<90.0	0.00
24400	FILERS	4	<90.0	<90.0	0.00
24800	POWERHOUSE OPERATOR	3	<90.0	<90.0	0.00
26200	CLEAN-UP MAN/DOWN TM	1	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BAN JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 3		NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. WT. MEAN	PUP. H.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	ORKLIFT OPERATOR	8	90.0	90.0	44	44	
140	RESAN OPERATOR	3	95.4	95.4	31	31	
144	LUMBER DIVERTER	3	94.8	94.8	29	29	
101	SAWMILL SUPERVISOR	3	94.3	94.3	28	28	
104	PLANER SUPERVISOR	3	94.3	94.3	28	28	
212	MILLHRIGHT/SAWMILL	3	94.3	94.3	27	27	
134	EDGER OPERATOR	3	92.9	92.9	23	23	
213	MILLHRIGHT/PLANER	3	90.6	91.9	18	21	
248	POWERHOUSE OPERATOR	3	67.8	67.8	12	12	
154	STACKER-GREEN	3	67.5	94.9	11	29	
155	STICKERMAN-GREEN	3	65.7	68.2	8	13	
244	FILERS	4	64.0	64.0	8	8	
114	DEBARKER OPERATOR	3	65.1	65.1	7	7	
261	CLEAN-UP MAN/REGULAK	1	91.3	91.3	6	6	
265	LABOREK	1	88.4	89.7	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 TM	1	<75.0	<75.0	0	0	

ENVIRONMENTAL PROTECTION AGENCY

BBM JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	95
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	89
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	89
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (MEAN)	44
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (W.C.)	64
LEVEL WEIGHTED POPULATION (MEAN)	607.7
LEVEL WEIGHTED POPULATION (W.C.)	725.4

ENVIRONMENTAL PROTECTION AGENCY

BN 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. = 3

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	LEVEL 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	RESAW 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	EDGEK 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	LABURER	1	<90.0	<90.0	0.45	0.55
114	DEBAKKER OPERATOR	3	<90.0	<90.0	0.00	0.0
123	SAHYER	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	1.25
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 JUB NU. 9635

PERSUNNEL 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 NU. = 3

NU DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 95
TOTAL NUMBER OVEREXPOSED (MEAN) = 45
TOTAL NUMBER OVEREXPOSED (M.G.) = 60

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332

NO DATES SPECIFIED

PLANT NOS. = 7, 0, 5, 4, 3, 2, 1,

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	WORK MEAN TIME-HRS	WORK STD. DEVIATION
27000	FIREMAN	1	1104 1170 1440 1435 1543	1.6 0.8 1.6 3.2 0.8	0.0 0.0 0.0 0.0 0.0
26600	HELPER	6	1380 1485	7.2 0.8	0.0 0.0
26504	LABORER	2	1000	0.0	0.0
26503	LABORER	2	1435 1104 1530 1485 1334	4.0 0.8 0.0 0.0 2.6	0.0 0.0 0.0 0.0 0.0
26502	LABORER	2	1435	0.0	0.0
26501	LABORER	6	1435 1430 1104 1485 1334	4.8 0.8 0.8 0.8 0.0	0.0 0.0 0.0 0.0 0.0
26500	LABORER	1	1375 1435 1104 1485	4.0 2.4 1.2 0.4	0.0 0.0 0.0 0.0
26410	SERVICEMAN	2	1435	0.0	0.0
26404	SERVICEMAN	4	1000 1334 1530 1481	2.0 2.0 3.0 0.4	0.0 0.0 0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

DATA JOB NO. 9035

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332
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
26400	SERVICEMAN	2	1000 1334 1530 1481 1543	3.2 1.6 1.6 0.6 0.8	0.0 0.0 0.0 0.0 0.0
26407	SERVICEMAN	2	1000 1380 1530	3.2 2.4 2.4	0.0 0.0 0.0
26400	SERVICEMAN	4	1102 1159 1194	2.4 2.4 3.2	0.0 0.0 0.0
26403	SERVICEMAN	2	1102 1159	4.0 4.0	0.0 0.0
26404	SERVICEMAN	2	1306 1536	4.8 3.2	0.0 0.0
26403	SERVICEMAN	2	1102 1334 1530	1.6 3.2 3.2	0.0 0.0 0.0
26402	SERVICEMAN	4	1193 1188	0.0 2.0	0.0 0.0
26401	SERVICEMAN	2	1102 1188 1159 1000	4.0 1.2 2.0 0.8	0.0 0.0 0.0 0.0
26400	SERVICEMAN	2	1188 1102	4.0 4.0	0.0 0.0

ENVIRONMENTAL PROTECTION AGENCY

CON JOB NO. 4032

PERSONNEL WORK ASSIGNMENT AVERAGES

SIC CODE = 332
PLANT NOS. = 7, 6, 5, 4, 3, <, 1,

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	EQUIP. CODE	Wk. MEAN TIME-8HRS	Wk. STD. DEVIATION
20300	WORKSAVER OPERATOR	0	1130 1102 1154	1.0 4.0 1.0	0.0 0.0 0.0
20203	FORKLIFT OPERATOR	2	1338 1440 1430 1490 1485	1.2 1.2 1.2 2.0 2.4	0.0 0.0 0.0 0.0 0.0
20204	FORKLIFT OPERATOR	2	1000 1439 1530 1354 1341	3.2 0.8 2.4 0.8 0.8	0.0 0.0 0.0 0.0 0.0
20201	FORKLIFT OPERATOR	2	1000 1439	7.2 0.8	0.0 0.0
20200	FORKLIFT OPERATOR	2	1000 1460 1490 1802	2.0 2.4 2.0 1.0	0.0 0.0 0.0 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	W.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	112.0	112.0	7	4.8	0.054
1647	RESAW-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	41.0	91.0	3	1.5	0.017
1796	POWERHOUSE	1	87.0	87.0	3	1.5	0.017
1693	BACK. ONLY CONTR.	1	82.0	90.0	28	1.3	0.015
1711	PLANER/ENCL	1	102.0	102.0	7	1.3	0.014
1646	RESAW-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-UFF SAW	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 SUB NU. 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 NU. = 3	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	M.C. L.J.	NO. OF PERS.	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	0.153
1638	EDGEK	1	93.0	93.0	24	5.8	0.130
1647	RESAH-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	RESAH-LARGE	1	94.0	94.0	3	0.9	0.019
1682	GREEN CHAIN CONVY	1	80.0	80.0	9	0.3	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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 L.J.	M.C. L.J.	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1674	GREEN CHAIN	2	87.5	87.5	91	18.7	0.210
1699	PLANER	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	EDGER	2	91.0	91.0	34	7.5	0.084
1664	TRIMMER	3	94.7	94.7	20	7.0	0.078
1644	RESAW/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	POWERHOUSE	2	89.0	89.0	6	3.0	0.033
1600	DEBARKER	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. 4635

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	H.C. LJ	NO.UF PEKS.	PRIORITY INDEX	NORM. P.I.
1674	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 PERKS.	MEAN	LEVEL M.C.	LEV. MEAN	WT. M.C.	PUP.
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	FILERS	5	80.8	80.8	4		4
12300	SAMYER	3	80.0	80.0	1		1
13400	EDGER OPERATOR	3	<75.0	<75.0	0		0
11400	DEBARKER OPERATOR	3	<75.0	<75.0	0		0
26200	CLEAN-UP MAN/DOWN TM	1	<75.0	<75.0	0		0

ENVIRONMENTAL PROTECTION AGENCY

DOE 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	PLANT NO.	NO. DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	LEVEL W.C.	DAILY NOISE DUSE MEAN	W.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	SAWMILL SUPERVISOR	3	93.0	93.0	1.52	1.52
15100	GREEN CHAIN PULLER	9	90.4	90.4	1.06	1.06
21200	MILLWRIGHT/SAWMILL	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	EDGER 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

PERSUNNEL NOISE EXPUSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242 PLANT NO. = 4 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NU. OF PERS.	MEAN SOUND	LEVEL MEAN H.C.	LEV. WT. MEAN	PUP. H.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	MILLWRIGHT/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	FILERS	5	80.8	80.8	4	4
123	SAWYER	3	80.0	80.0	1	1
134	EDGER 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 LEQ > 75 (MEAN) 36
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.) 36
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 25
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (H.C.) 25
LEVEL WEIGHTED POPULATION (MEAN) 205.6
LEVEL WEIGHTED POPULATION (H.C.) 205.6

ENVIRONMENTAL PROTECTION AGENCY

BON 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 = 242

PLANT NO. = 4

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	NOISE LEVEL MEAN	NOISE LEVEL H.C.	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE H.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	MILLwright/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	SAWYER	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/DOHN TM	1	<90.0	<90.0	0.00	0.0

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

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 9035

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 4			NU DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NU.OF UNITS	MEAN LJ	N.C. LJ	NU.OF PEKS.	PRIORITY INDEX	NORM. P.I.
1682	GREEN CHAIN CONVY	1	42.0	42.0	46	12.8	0.357
1623	HEADKIG	1	61.0	61.0	33	10.4	0.290
1672	TRIMMER	1	45.0	45.0	42	4.9	0.136
1638	EDGER	1	72.0	72.0	30	4.2	0.117
1683	GREEN CHAIN CONVY	1	45.0	45.0	31	3.0	0.083
1622	HEADKIG	1	76.0	76.0	3	0.4	0.010
1647	KESAM-LARGE	1	43.0	43.0	4	0.2	0.006

ENVIRONMENTAL PROTECTION AGENCY

BSN 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	NRK. 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	HEADRIG	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			NU DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	H.C. LJ	NO.OF PERS.	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	0.156
1629	EDGER	2	70.5	70.5	30	4.2	0.117
1644	RESAH/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 PERS.	PRIORITY INDEX	NUKM. P.I.
1679	GREEN CHAIN	2	93.5	93.5	18	12.4	0.687
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	EDGER	2	70.5	70.5	6	0.9	0.050

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 5

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NU. 9630

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 3	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE MEAN	LEVEL N.C.	LEV. MEAN PUP. N.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	94.0	94.0	14 14
16700	PLANER OPERATOR	1	95.9	97.3	10 12
20200	FORKLIFT OPERATOR	5	84.1	88.1	10 21
14400	LUMBER DIVERTER	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	94.7	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	91.9	6 6
11400	DEBARKER OPERATOR	1	90.4	90.4	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	86.9	3 3
18100	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	LABUREK	1	81.8	81.8	1 1
20100	LUMBER CARRIER OPER	1	78.4	78.4	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

ENVIRONMENTAL PROTECTION AGENCY

B&M JOB NO. 9632

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	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE MEAN
16800	PLANER SET-UP MAN	1	101.5	101.5	4.95
13400	EDGER OPERATOR	1	100.5	100.5	4.31
13800	HOG OPERATOR	1	97.0	97.0	2.64
16700	PLANER OPERATOR	1	95.8	97.2	2.25
14400	LUMBER DIVERTER	1	95.4	97.2	2.11
14801	TRIMMER OPERATOR	1	95.0	95.9	2.01
14800	TRIMMER OPERATOR	1	93.4	94.0	1.59
17300	GRADER/PLANER MILL	2	93.0	93.0	1.52
13700	CHIPPER OPERATOR	1	92.5	93.9	1.41
18200	TALLYMAN	1	90.9	90.9	1.14
14000	RESAW OPERATOR	1	90.8	90.8	1.12
21100	MILLRIGHT/GENERAL	2	90.7	90.7	1.11
22800	ELECTRICIANS	1	90.7	90.7	1.11
11400	DEBARKEE OPERATOR	1	<90.0	<90.0	0.39
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26
17600	DRY CHAIN PULLER	4	<90.0	<90.0	0.22
11100	LOG CARRIER OPER	1	<90.0	<90.0	0.00
12300	SAHYER	1	<90.0	<90.0	0.00
12700	TAIL SAHYER	1	<90.0	<90.0	0.00
15100	GREEN CHAIN PULLER	4	<90.0	<90.0	0.00
15400	STACKER-GREEN	1	<90.0	94.7	0.00
15500	STICKERMAN-GREEN	1	<90.0	<90.0	0.00
16000	KILN OPERATOR	1	<90.0	<90.0	0.00
16100	UNSTACKER-DRY	1	<90.0	<90.0	0.00
16200	UNSTACKER PULLER	3	<90.0	<90.0	0.00
16300	GRADER/SORTING CHAIN	1	<90.0	<90.0	0.00
20100	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00
20200	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00
26500	LABOKER	1	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 2	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SUOND MEAN	LEVEL M.C.	LEV. MT. PUP. MEAN	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	HILLWRIGHT/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	75.4	77.2	10	12
137	CHIPPER OPERATOR	1	94.9	100.9	9	16
162	UNSTACKER PULLER	3	86.0	88.8	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	DEBARKER 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	80.4	85.4	3	3
161	UNSTACKER-DRY	1	86.0	86.6	3	4
163	GRADER/SORTING CHAIN	1	82.5	82.9	2	2
160	KILN OPERATOR	1	82.0	84.6	1	5
265	LABOKER	1	81.8	81.6	1	1
201	LUMBER CARRIER OPER	1	78.4	78.4	0	0
123	SAYTER	1	75.7	75.7	0	0
127	TAIL SAYTER	1	75.7	75.7	0	0
111	LOG CARRIER OPER	1	<75.0	<75.0	0	0

ENVIRONMENTAL PROTECTION AGENCY

DOA JUD NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = >

NO DATES SPECIFIED

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 > 40 (MEAN)	10
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (W.C.)	17
LEVEL WEIGHTED POPULATION (MEAN)	227.9
LEVEL WEIGHTED POPULATION (W.C.)	271.6

ENVIRONMENTAL PROTECTION AGENCY

EDN 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	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN SOUND LEVEL N.C.	DAILY NOISE DOSE MEAN	N.C.
168	PLANER SET-UP MAN	1	101.5	101.5	4.95
134	EDGER OPERATOR	1	100.5	100.5	4.31
138	HOG OPERATOR	1	97.0	97.0	2.64
167	PLANER OPERATOR	1	95.8	97.2	2.25
144	LUMBER DIVERTER	1	95.4	97.2	2.11
148	TRIMMER OPERATOR	2	94.2	95.6	1.80
173	GRADER/PLANER MILL	2	93.0	93.0	1.52
137	CHIPPER OPERATOR	1	92.5	90.9	1.41
182	TALLYMEN	1	90.4	90.9	1.14
140	RESAW OPERATOR	1	90.8	93.8	1.12
211	MILLwright/GENERAL	2	90.7	90.7	1.11
228	ELECTRICIANS	1	90.7	90.7	1.11
114	DEBARKER OPERATOR	1	<90.0	<90.0	0.39
261	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26
176	DRY CHAIN PULLER	4	<90.0	<90.0	0.22
111	LOG CARRIER OPER	1	<90.0	<90.0	0.00
123	SAWYER	1	<90.0	<90.0	0.00
127	TAIL SAWYER	1	<90.0	<90.0	0.00
151	GREEN CHAIN PULLER	4	<90.0	<90.0	0.00
154	STACKER-GREEN	1	<90.0	94.7	0.00
155	STICKERMAN-GREEN	1	<90.0	<90.0	0.00
160	KILN OPERATOR	1	<90.0	<90.0	0.00
161	UNSTACKER-DRY	1	<90.0	<90.0	0.00
162	UNSTACKER PULLER	3	<90.0	<90.0	0.00
163	GRADER/SURTING CHAIN	1	<90.0	<90.0	0.00
201	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00
202	FORKLIFT OPERATOR	5	<90.0	<90.0	0.00
265	LABORER	1	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NO. 9635

PERSUNNEL NOISE EXPOSURE AND IMPAINT 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 = 43
TOTAL NUMBER OVEREXPOSED (MEAN) = 19
TOTAL NUMBER OVEREXPOSED (W.C.I.) = 16

ENVIRONMENTAL PROTECTION AGENCY

B&N 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 L _A	H.C. L _A	NO. OF PERS.	PRIORITY INDEX	NURM. 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	EDGER	1	101.0	101.0	13	3.8	0.090
1692	KILN CHAIN CONVYR	2	88.5	92.0	7	3.5	0.062
1623	HEADKIG	1	76.0	76.0	14	2.8	0.067
1742	DRY CHAIN CONVEYR	1	88.9	88.9	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	KESAH-LARGE	1	92.0	92.0	7	1.7	0.042
1665	BACK/TRIMMER	1	90.0	90.0	5	1.7	0.040
1702	PLANER	1	112.0	112.0	6	1.6	0.039
1670	TRIMMER	2	93.5	94.4	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	90.0	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-UFF SAH	1	95.0	95.0	5	0.5	0.012
1603	DEBARKER	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-UFF SAH	1	74.0	94.0	1	0.1	0.003
1783	CHIPPER	2	87.0	89.8	4	0.1	0.003
1646	KESAH-LARGE	1	85.0	85.0	1	0.0	0.001
1635	EDGER	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

BON JUB NO. 4635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE =	242	PLANT NO. =	>	NU DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L _A	H-C. L _A	NU. OF PERS.	PRIORITY NORM. INDEX P.I.
1602	DEBARKER	1	80.0	80.0	1	0.0 0.000

ENVIRONMENTAL PROTECTION AGENCY

BON 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. = 5		NO DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	H.C. LJ	NO. OF PERS.	PRIORITY INDEX	MURM. 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	HEADRIG	1	76.0	76.0	9	1.0	0.068
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	90.0	90.6	1	0.2	0.013
1669	TRIMMER	2	92.0	94.8	2	0.1	0.010
1614	CUT-OFF SAW	1	45.0	45.0	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	65.0	65.0	1	0.0	0.002

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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	H.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUKM. P.I.
1688	KILN CHAIN	12	87.4	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	HEADRIG	4	87.5	87.5	16	3.0	0.071
1664	TRIMMER	9	92.3	94.4	17	3.0	0.071
1644	RESAW/LARGE	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	0.024
1685	KILN	0	0.0	-53.0	1	1.0	0.0
1610	CUT-OFF	2	94.5	94.5	0	0.6	0.015
1600	DEBARKER	2	87.0	87.0	2	0.6	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. = 3	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	W.C. L.J.	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1699	PLANER	5	97.6	99.8	7	4.0	0.267
1629	EDGER	2	97.0	97.5	11	3.4	0.258
1644	RESAW/LARGE	2	88.0	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
1779	CHIPPER	4	92.3	97.2	2	1.0	0.067
1688	KILN CHAIN	12	87.2	92.0	1	0.8	0.054
1610	CUT-UFF	2	94.0	94.0	4	0.1	0.005

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

BBN 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 PERKS.	STUND MEAN	LEVEL M.C.	LEV. HT. PUP. MEAN M.C.
21100	MILLWRIGHT/GENERAL	4	94.9	94.9	39 39
12700	TAIL SAWYER	2	100.8	100.8	33 33
16800	PLANER SET-UP MAN	2	100.0	100.0	31 31
16700	PLANER OPERATOR	4	92.2	92.7	29 42
13700	CHIPPER OPERATOR	2	98.6	103.3	27 40
17300	GRADER/PLANER MILL	4	91.5	92.2	27 29
24500	OILER	2	94.9	94.9	19 19
26501	LABOURER	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	FORKLIFT OPERATOR	7	55.0	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 9
13400	EDGER OPERATOR	2	81.6	81.6	2 2
13100	GANG SAW OPERATOR	2	78.8	75.8	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	LABOURER	2	<75.0	<75.0	0 0
26600	HELPER	1	<75.0	<75.0	0 0

ENVIRONMENTAL PROTECTION AGENCY

BBN 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	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE LEVEL MEAN N.C.	DAILY NOISE DOSE MEAN N.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 95.5	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	0.58 1.16
11400	DEBARKER 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. = 3	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	SOUND MEAN	LEVEL W.C.	LEV. WT. PUP. MEAN 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	79.8	19 19
226	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 14
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	FILERS	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	79.0	79.0	0 0
114	DEBARKER OPERATOR	2	77.4	77.4	0 0
217	HELDER	1	<75.0	<75.0	0 0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	86
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	81
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	81
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (MEAN)	30
TOTAL NUMBER OF PERSONNEL WITH LEQ > 40 (W.C.)	44
LEVEL WEIGHTED POPULATION (MEAN)	407.5
LEVEL WEIGHTED POPULATION (W.C.)	522.4

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

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

SIC CODE = 242	PLANT NO. = 6	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NU. OF PERS.	SUOND LEVEL MEAN	DAILY NOISE DOSE MEAN	N.C.
127	TAIL SAWER	2	100.8	4.47	4.47
137	CHIPPER OPERATOR	2	90.0	3.03	3.57
211	MILLRIGHT/GENEKAL	4	94.4	1.84	1.84
245	DILER	2	94.4	1.84	1.84
228	ELECTRICIANS	2	93.4	1.61	1.61
233	CARPENTERS	1	93.4	1.61	1.61
138	HOG OPERATOR	2	92.7	1.44	1.44
167	PLANER OPERATOR	4	92.1	1.33	2.14
173	GRADER/PLANER MILL	4	91.5	1.23	1.36
168	PLANER SET-UP MAN	2	91.4	1.21	1.21
266	HELPER	4	91.4	1.21	1.21
265	LABORER	4	<90.0	0.81	0.81
179	BANDER OPERATOR	2	<90.0	0.58	1.16
114	DEBARKER OPERATOR	2	<90.0	0.00	0.0
123	SAWYER	2	<90.0	0.00	0.0
131	GANG SAW OPERATOR	2	<90.0	0.00	0.0
134	EDGER OPERATOR	2	<90.0	0.00	0.0
145	GREEN CHAIN OPERATOR	2	<90.0	0.00	0.0
148	TRIMMER OPERATOR	4	<90.0	0.00	1.50
154	STACKER-GREEN	2	<90.0	0.00	1.07
155	STICKERMAN-GREEN	2	<90.0	0.00	1.53
160	KILN OPERATOR	2	<90.0	0.00	0.0
161	UNSTACKER-DRY	2	<90.0	0.00	2.67
162	UNSTACKER PULLER	6	<90.0	0.00	0.0
163	GRADER/SORTING CHAIN	2	<90.0	0.00	2.67
176	DRY CHAIN PULLER	6	<90.0	0.00	0.0
182	TALLYMEN	5	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	7	<90.0	0.00	0.0
217	WELDER	1	<90.0	0.00	0.0
219	MACHINISTS	1	<90.0	0.00	0.0
244	FILERS	3	<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. = 3

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 68
TOTAL NUMBER OVEREXPOSED (MEAN) = 30
TOTAL NUMBER OVEREXPOSED (n.c.) = 44

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9630

EQUIPMENT NOISE IMPACT

EPA CRITERIA

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 NORM. INDEX P.I.
1693	KILN CHAIN CONVYR	2	80.0	82.0	14	12.0 0.148
1831	GANG SAH	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	80.0	97.1	6	4.0 0.049
1716	PLANER/ENCL	2	91.5	92.2	4	4.0 0.049
1638	EDGER	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	88.5	88.5	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	DEBAKER	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-UFF SAH	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	DEBAKER	1	75.0	75.0	2	0.1 0.001
1637	EDGER	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

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 5

NU DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1830	GANG SAN	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

BON SUB NU. 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	% C. LJ	NO. OF PEKS.	PRIORITY INDEX	NUKM. P.1.	
1831	GANG SAW	1	79.0	79.0	28	3.1	0.169	
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	HEADRIG	1	84.0	84.0	14	2.0	0.066	
1627	HEADRIG	1	101.0	101.0	2	2.0	0.065	
1784	CHIPPER	2	100.5	102.4	2	1.7	0.057	
1788	MOG/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	EDGER	4	82.0	82.0	14	1.1	0.036	
1787	MOG/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	HEADRIG	1	95.0	95.0	2	0.0	0.001	

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 5	NU DATES SPECIFIED				
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	M.C. LJ	NU.OF PERS.	PRIORITY NORM. INDEX P.I.
1688	KILN CHAIN	10	85.1	92.0	26	21.5 0.265
1699	PLANER	6	95.4	97.9	59	13.0 0.161
1828	GANG SAW	2	76.0	76.5	41	9.4 0.116
1800	FORKLIFT	2	85.0	85.0	9	8.8 0.109
1664	TRIMMER	4	87.0	92.7	50	7.3 0.090
1620	HEADRIG	4	90.0	90.0	31	6.1 0.076
1629	EDGER	2	76.0	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	DEBARKER	2	76.0	76.5	4	1.8 0.022
1644	KESAW/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-UFF	2	74.0	74.5	2	0.2 0.002

ENVIRONMENTAL PROTECTION AGENCY

BON JUB 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	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NU.OF UNITS	MEAN L.J.	N.C. L.J.	NO.OF PEKS.	PRIORITY INDEX	NUKM. P.1.
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	90.0	90.0	18	4.0	0.133
1664	TRIMMER	4	97.0	92.7	34	2.7	0.089
1785	HOG	2	92.5	92.5	4	2.0	0.067
1779	CHIPPER	4	95.0	99.4	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	87.0	91.0	14	0.9	0.029

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

DOE 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.	SUMO MEAN	LEVEL N.C.	LEV. MEAN	PUP. N.C.
21100	MILLRIGHT/GENERAL	40	89.9	89.9	222	222
22800	ELECTRICIANS	30	84.9	84.9	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	EDGER OPERATOR	4	94.9	94.9	39	39
17601	DRY CHAIN PULLER	10	80.4	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	SAWYER	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 JUB NO. 4030

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	NU. OF PERS.	MEAN SOUND LEVEL	MEAN %C.	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE %C.
15900	TRANSFER OPERATOR	3	99.4	99.4	3.09	3.69
16800	PLANER SET-UP MAN	2	97.5	90.0	2.81	3.01
13801	HUG OPERATOR	2	94.9	94.9	1.97	1.97
16700	PLANER OPERATOR	2	94.4	97.7	1.83	2.91
13400	EDGER 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 UFFB	1	91.4	91.4	1.22	1.22
14300	UNSCRAMBLE OPERATOR	2	90.9	94.4	1.13	1.65
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	DEBARKER 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/PLANER MILL	4	<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. 9632

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 7	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	SOUND MEAN	LEVEL N.C.	LEV. MEAN	PUP. 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	90.2	87.4	56	64
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	90.2	90.2	34	34
201	LUMBER CARRIER OPER	7	80.5	80.5	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	UNSCHAMBLE OPERATOR	2	91.3	94.8	13	19
140	RESAW OPERATOR	2	90.6	90.6	12	12
266	HELPER	6	83.6	83.6	11	11
182	TALLYMEN	4	85.0	85.0	9	4
120	CUT-OFF SAW OPERATOR	2	88.3	88.3	8	8
154	STACKER-GREEN	4	83.8	83.8	7	7
190	SPECIALTY RESAW OPER	1	92.0	92.0	7	7
191	SPECIALTY RESAW OFFB	1	92.0	92.0	7	7
155	STICKERMAN-GREEN	4	83.0	83.0	6	6
123	SAWYCK	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

SON JUB NU. 9635

PERSUNNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NU. = /

NU DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	174
TOTAL NUMBER OF PERSONNEL WITH LEO > 75 (MEAN)	155
TOTAL NUMBER OF PERSONNEL WITH LEO > 75 (W.C.)	159
TOTAL NUMBER OF PERSONNEL WITH LEO > 80 (MEAN)	20
TOTAL NUMBER OF PERSONNEL WITH LEO > 80 (W.C.)	20
LEVEL WEIGHTED POPULATION (MEAN)	780.8
LEVEL WEIGHTED POPULATION (W.C.)	820.0

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NU. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

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

SIC CODE	PLANT NO.	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	MEAN
159	TRANSFER OPERATOR	3	99.4	3.69	3.69
168	PLANER SET-UP MAN	2	97.5	2.81	3.01
167	PLANER OPERATOR	2	94.4	1.83	2.91
134	EDGER OPERATOR	4	94.3	1.82	1.82
138	HOG OPERATOR	3	93.8	1.69	1.69
190	SPECIALTY RESAW OPER	1	91.4	1.22	1.22
191	SPECIALTY RESAW OFFB	1	91.4	1.22	1.22
143	UNSCRAMBLE OPERATOR	2	90.9	1.13	1.89
140	RESAW OPERATOR	2	<90.0	0.98	0.98
211	MILLwright/GENERAL	40	<90.0	0.74	0.74
228	ELECTRICIANS	30	<90.0	0.74	0.74
120	CUT-OFF SAW OPERATOR	2	<90.0	0.26	0.26
114	DEBARKER OPERATOR	2	<90.0	0.00	0.0
123	SAHYEK	4	<90.0	0.00	0.0
148	TRIMMER OPERATOR	4	<90.0	0.00	0.18
154	STACKER-GREEN	4	<90.0	0.00	0.0
155	STICKERMAN-GREEN	4	<90.0	0.00	0.0
173	GRADER/PLANER MILL	9	<90.0	0.00	0.0
176	DRY CHAIN PULLER	18	<90.0	0.00	0.0
182	TALLYMEN	4	<90.0	0.00	0.0
201	LUMBER CARRIER OPER	7	<90.0	0.00	0.0
202	FORKLIFT OPERATOR	7	<90.0	0.00	0.0
219	MACHINISTS	8	<90.0	0.00	0.0
223	MECHANICS	10	<90.0	0.00	0.0
266	HELPER	6	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BNB JUB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 2 DBA

SIC CODE = 242

PLANT NO. = 7

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 174
TOTAL NUMBER OVEREXPOSED (MEAN) = 18
TOTAL NUMBER OVEREXPOSED (M.C.) = 18

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 7			NU DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L _A	M.C. L _A	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1623	HEADRIG	2	83.0	84.4	80	39.4	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	0.064
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	83.2	91.6	4	3.0	0.014
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-UFF SAW	1	97.0	97.0	2	1.5	0.009
1612	CUT-UFF SAW	1	83.0	83.0	2	0.5	0.003
1622	HEADRIG	2	74.0	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

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. = 7		NO DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	MEAN LJ	NO. OF PERS.	PRIORITY INDEX	NUM. P.I.
1636	EDGER	1	95.2	95.5	5	4.0	0.225
1711	PLANER/ENCL	4	94.5	97.9	7	3.0	0.107
1815	TRANSFER CARRIER	1	102.0	102.0	3	3.0	0.107
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
1704	PLANER	2	116.2	117.2	2	1.4	0.078
1790	HUG	1	94.0	94.0	2	0.4	0.025
1623	HEADRIG	2	83.0	84.4	1	0.3	0.017
1788	HUG/ENCL	1	90.0	90.0	1	0.3	0.017
1670	TRIMMER	1	72.0	72.0	1	0.2	0.0
1787	HUG/ENCL	1	91.0	91.0	1	0.2	0.000
1710	PLANER/ENCL	1	91.3	91.3	2	0.1	0.004

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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	H.C. LJ	NO. OF PEKS.	PRIORITy INDEX	MURM. P.I.
1620	HEADRIG	4	82.0	82.4	84	40.3	0.260
1699	PLANER	10	97.5	100.4	153	14.2	0.124
1664	TRIMMER	5	83.8	97.9	92	18.8	0.121
1688	KILN CHAIN	11	94.7	93.6	39	16.8	0.108
1800	FORKLIFT	1	88.0	88.0	13	13.0	0.084
1759	RESAW/SPECIALTY	2	92.0	92.0	76	10.6	0.068
1739	DRY CHAIN	5	88.4	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	89.2	93.0	4	2.0	0.013
1610	CUT-OFF	2	90.0	90.0	4	2.0	0.013
1779	CHIPPER	2	99.5	99.5	5	1.7	0.011
1785	HOG	4	92.5	92.5	4	0.6	0.004
1776	CONVEYOR/GEN	2	84.8	85.2	3	0.1	0.001
1685	KILN	2	85.5	93.3	3	0.0	0.000

ENVIRONMENTAL PROTECTION AGENCY

BON 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		NU DATES SPECIFIED				
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NU.RN. P.I.	
1699	PLANER	10	87.5	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	
1674	GREEN CHAIN	4	89.5	93.0	4	2.0	0.111	
1779	CHIPPER	2	99.0	99.6	2	1.0	0.067	
1759	RESAW/SPECIALTY	2	92.0	92.0	4	1.5	0.086	
1785	HOG	4	92.8	92.8	4	0.9	0.050	
1620	HEADKIG	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. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 5	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE MEAN	LEVEL %C.	LEV. MEAN %C. PUP. %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 OFFS	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	TALLYMAN	2	91.6	91.6	13 13
26100	CLEAN-UP MAN/REGULAK	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	88.0	2 4
21300	HILLWRIGHT/PLANER	1	85.3	88.6	2 4
15500	STICKERMAN-GREEN	1	85.1	85.1	2 2
17302	GRADER/PLANER MILL	1	84.6	88.8	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	79.8	79.8	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. 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. = 6	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERKS.	NOISE LEVEL MEAN N.C.	DAILY NOISE DOSE MEAN N.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
15400	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. = 5 NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL MEAN	LEV. WT. POP. MEAN
168	PLANER SET-UP MAN	6	115.0	117.8	240 275
173	GRADER/PLANER MILL	8	94.0	95.5	75 60
148	TRIMMER OPERATOR	6	95.7	95.7	64 64
167	PLANER OPERATOR	6	94.7	95.8	58 65
176	DRY CHAIN PULLER	13	50.7	90.7	44 80
154	STACKER-GREEN	8	80.1	85.4	24 26
191	SPECIALTY RESAW OPER	2	96.5	97.2	23 24
202	FORKLIFT OPERATOR	7	55.8	90.0	20 39
190	SPECIALTY RESAW OPER	1	102.0	103.4	18 20
104	PLANER SUPERVISOR	3	59.4	92.6	15 23
182	TALLYMEN	2	41.6	91.6	13 13
261	CLEAN-UP MAN/REGULAR	2	89.8	93.2	10 16
213	MILLWRIGHT/PLANER	1	55.3	83.0	2 4
155	STICKERMAN-GREEN	1	55.1	82.1	2 2
143	UNSCRAMBLE OPERATOR	1	54.0	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 TM	2	<75.0	<75.0	0 0

TOTAL NUMBER OF PERSONNEL	73
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.)	764.0

ENVIRONMENTAL PROTECTION AGENCY

JAN JUC NU. 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 MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE M.C.
168	PLANER SET-UP MAN	6	113.3	115.0	25.25
190	SPECIALTY RESAW OPER	1	102.0	103.4	5.28
191	SPECIALTY RESAW OFF	2	96.5	97.2	2.46
148	TRIMMER OPERATOR	6	95.7	95.7	2.14
173	GRADER/PLANER MILL	8	94.3	95.6	1.81
167	PLANER OPERATOR	6	94.2	94.5	1.80
182	TALLYMEN	2	91.2	91.2	1.19
261	CLEAN-UP MAN/REGULAK	2	<90.0	90.5	0.65
104	PLANER SUPERVISOR	3	<90.0	<90.0	0.58
213	MILLWRIGHT/PLANER	1	<90.0	<90.0	0.26
143	UNSCRAMBLE OPERATOR	1	<90.0	<90.0	0.00
145	GREEN CHAIN OPERATOR	1	<90.0	<90.0	0.00
154	STACKER-GREEN	8	<90.0	<90.0	0.00
155	STICKERMAN-GREEN	1	<90.0	<90.0	0.00
160	KILN OPERATOR	2	<90.0	<90.0	0.00
176	DRY CHAIN PULLER	13	<90.0	<90.0	0.00
179	BANDER OPERATOR	2	<90.0	<90.0	0.00
201	LUMBER CARRIER OPER	1	<90.0	<90.0	0.00
202	FORKLIFT OPERATOR	7	<90.0	<90.0	0.00
219	MACHINISTS	1	<90.0	<90.0	0.00
223	MECHANICS	2	<90.0	<90.0	0.00
262	CLEAN-UP MAN/DOWN TA	2	<90.0	<90.0	0.00

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

ENVIRONMENTAL PROTECTION AGENCY

BON JOB NO. 4635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242

PLANT NO. = 3

NO DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.E. LJ	NO. OF PERS.	PRIORITY INDEX	NUMM- P.1.
1742	DRY CHAIN CONVEYR	2	87.0	91.2	30	11.6	0.166
1702	PLANER	2	118.0	120.8	36	4.3	0.133
1802	FORKLIFT	2	88.0	92.2	26	7.1	0.102
1710	PLANER/ENCL	2	96.0	97.4	13	6.4	0.098
1690	KILN CHAIN CONVYR	1	88.4	88.4	7	6.8	0.098
1711	PLANER/ENCL	2	95.0	94.2	18	6.6	0.045
1670	TRIMMER	1	96.0	96.0	12	6.2	0.088
1694	KILN CHAIN CONVYR	1	88.8	84.3	36	5.2	0.075
1687	KILN	1	85.0	82.0	2	2.0	0.029
1708	RESAM-SPECIALTY	2	96.0	97.4	2	2.0	0.028
1695	KILN CHAIN CONVYR	1	92.0	92.0	2	1.2	0.017
1762	BACK. ONLY CONTR.	1	88.8	88.8	12	1.0	0.014
1764	RESAM-SPECIALTY	2	102.0	103.4	1	1.0	0.014
1691	KILN CHAIN CONVYR	1	89.4	87.4	6	0.3	0.005
1715	PLANER/ENCL	1	93.0	93.0	6	0.2	0.003
1669	TRIMMER	2	91.0	93.0	6	0.2	0.003
1710	PLANER/ENCL	2	90.0	90.0	6		

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NO. 4032

EQUIPMENT NOISE CONTROL PRIORITY

THRESHOLD LEVEL = 40.0 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 L _A	N.C. L _A	NO. OF PEKS.	PRIORITY INDEX	NRK. P.I.
1716	PLANER/ENCL	2	96.0	97.4	7	0.0	0.220
1711	PLANER/ENCL	2	95.0	94.2	12	0.2	0.208
1702	PLANER	4	118.0	120.0	6	5.8	0.192
1670	TRIMMER	1	96.0	96.0	6	5.7	0.189
1695	KILN CHAIN CUNYK	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	91.0	93.0	6	0.3	0.011

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 9632

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 8	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NU.OF UNITS	MEAN LJ	M.C. LJ	NU.OF PERS.	PRIORITY INDEX	NURM. P.I.
1699	PLANER	9	99.0	104.0	79	23.3	0.333
1688	KILN CHAIN	11	97.0	90.2	46	15.0	0.214
1739	DRY CHAIN	2	97.0	91.2	30	11.6	0.166
1800	FORKLIFT	2	98.0	92.2	26	7.1	0.102
1664	TRIMMER	3	93.0	95.1	18	6.4	0.091
1759	RESAW/SPECIALTY	9	97.4	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 JUB NJ, 0635

EQUIPMENT NOISE CONTROL PRIORITY AVERAULS

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.UF UNITS	MEAN LJ	No.C. LJ	NO.UF PERS.	PRIORITY INDEX	NRM. P.t.	
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	90.2	3	3.0	0.100	
1688	KILN CHAIN	11	97.0	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 MEAN	LEVEL N.C.	LEV. MEAN	WT. PUP. N.C.
21200	MILLRIGHT/SAWMILL	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	FILERS	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
14500	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	89.4	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/PLANER MILL	1	84.0	84.0	2	2
13400	EDGER OPERATOR	2	81.3	81.3	1	1
14800	TRIMMER OPERATOR	2	78.8	79.8	0	0
17600	DRY CHAIN PULLER	4	77.0	78.4	0	1
16000	KILN OPERATOR	2	77.4	85.8	0	9
11400	DEBAKKER 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

DBN JIB NU. 4637

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.	NOISE LEVEL MEAN	NOISE DOSE MEAN	DAILY NOISE DOSE MEAN
13700	CHIPPER OPERATOR	2	96.0	96.7	2.29
23300	CARPENTERS	2	93.3	93.3	1.58
21200	MILLWRIGHT/SAHMILL	8	92.4	92.4	1.40
14000	KESAH OPERATOR	2	90.9	90.9	1.14
24500	OILER	2	90.5	90.5	1.08
24400	FILERS	2	<90.0	<90.0	0.86
10100	SAHMILL SUPERVISOR	2	<90.0	<90.0	0.81
15400	STACKER-GREEN	2	<90.0	90.2	0.57
26200	CLEAN-UP MAN/DOWN TH	1	<90.0	<90.0	0.53
26100	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26
11400	DEBARKER OPERATOR	2	<90.0	<90.0	0.00
11700	DECK SCALER	2	<90.0	94.2	0.00
12300	SAYER	2	<90.0	<90.0	0.00
13400	EDGER OPERATOR	2	<90.0	<90.0	0.00
14500	GREEN CHAIN OPERATOR	2	<90.0	<90.0	0.00
14800	TRIMMER OPERATOR	2	<90.0	<90.0	0.00
15500	STICKERMAN-GREEN	2	<90.0	<90.0	0.00
16000	KILM OPERATOR	2	<90.0	<90.0	0.00
17300	GRADER/PLANER MILL	1	<90.0	<90.0	0.00
17600	DRY CHAIN PULLER	4	<90.0	<90.0	0.00
18200	TALLYMEN	1	<90.0	<90.0	0.00
20200	FORKLIFT OPERATOR	4	<90.0	<90.0	0.00
21900	MACHINISTS	1	<90.0	<90.0	0.00
22300	MECHANICS	7	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BDR JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242		PLANT NO. = 4	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. MEAN	PUP. 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	OILER	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/REGULAK	1	89.9	91.0	5	6
262	CLEAN-UP MAN/DOWN TH	1	89.2	91.6	5	6
123	SAHYER	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	75.4	0	1
160	KILN OPERATOR	2	77.4	80.0	0	9
114	DEBARKER OPERATOR	2	76.0	76.0	0	0
182	TALLYHEN	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. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242

PLANT NO. = *

NU DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	50
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN)	49
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (W.C.)	49
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	20
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.)	30
LEVEL WEIGHTED POPULATION (MEAN)	226.9
LEVEL WEIGHTED POPULATION (W.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	NU. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE MEDIAN
137	CHIPPER OPERATOR	2	90.0	90.7	2.29
233	CARPENTERS	2	93.3	93.3	1.58
212	HILLRIGHT/SAWMILL	8	92.4	92.4	1.40
140	RESAW OPERATOR	2	90.9	90.9	1.14
245	UILER	2	90.5	90.5	1.08
244	FILERS	2	<90.0	<90.0	0.86
101	SAWMILL SUPERVISUR	2	<90.0	<90.0	0.81
154	STACKER-GREEN	2	<90.0	90.2	0.57
262	CLEAN-UP MAN/DOWN TM	1	<90.0	<90.0	0.53
261	CLEAN-UP MAN/REGULAR	1	<90.0	<90.0	0.26
114	DEBARKEK OPERATOR	2	<90.0	<90.0	0.00
117	DECK SCALER	2	<90.0	94.2	0.00
123	SAHYER	2	<90.0	<90.0	0.00
134	EDGER OPERATOR	2	<90.0	<90.0	0.00
145	GREEN CHAIN OPERATUR	2	<90.0	<90.0	0.00
148	TRIMMEX OPERATOR	2	<90.0	<90.0	0.00
155	STICKERMAN-GREEN	2	<90.0	<90.0	0.00
160	KILN OPERATUR	2	<90.0	<90.0	0.00
173	GRADER/PLANER MILL	1	<90.0	<90.0	0.00
176	DRY CHAIN PULLER	4	<90.0	<90.0	0.00
182	TALLYMEN	1	<90.0	<90.0	0.00
202	FORKLIFT OPERATOR	4	<90.0	<90.0	0.00
219	MACHINISTS	1	<90.0	<90.0	0.00
223	MECHANICS	7	<90.0	<90.0	0.00

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. = 9

NU DATES SPECIFIED

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

ENVIRONMENTAL PROTECTION AGENCY

BON JUD NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 4	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	M.C. L.J.	NU.OF PERS.	PRIORITY INDEX	NU.RM. P.I.
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	RESAH-LARGE	1	93.0	93.0	27	5.3	0.108
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	RESAH-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 JUB NU. 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 NU. = 7

NU DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	N.C. LJ	NO.OF PERS.	PRIORITY INDEX	NRK. P.I.
1647	RESAW-LARGE	1	93.0	93.0	18	4.5	0.283
1638	BACK. UNLY CONTR.	0	86.6	86.8	32	4.5	0.274
1623	HEADRIG	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

BON JOB NO. 9632

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 242	PLANT NO. = 9	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	M.C. L.J.	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1688	KILN CHAIN	9	84.1	87.6	13	9.0	0.184
1620	HEAURIG	2	80.5	80.5	61	8.2	0.167
1629	EDGER	2	80.0	80.0	56	7.6	0.155
1644	RESAW/LARGE	4	91.0	91.6	29	5.5	0.113
1600	DEBARKER	1	79.0	79.0	7	4.0	0.062
1800	FORKLIFT	1	86.0	86.0	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

EDN JUB NL. 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	N.C. LJ	NO. OF PERS.	PRIORITY INDEX	NUK.M. P.I.
1644	RESAW/LARGE	4	91.0	91.0	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	0.045
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

BBN 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 N.C.	LEV. MEAN	WT. PUP. N.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	WHEELABRATOR 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

DON JUB 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.	SUMMARY LEVEL MEAN	DAILY NOISE DOSE MEAN	MEAN
45000	DUMPOUT/SHAKEOUT OP	2	103.1	103.1	6.13
46700	WHEELABRATOR OPER	1	99.5	99.5	3.73
20200	FORKLIFT OPERATOR	2	98.1	98.1	3.09
32700	INDUCT. FURNACE OPER	1	97.4	97.4	2.80
46100	INSPECTOR	1	96.3	96.3	2.40
32800	FURNACE CHARGER	1	93.6	93.6	1.65
36700	POKER	6	93.0	93.0	1.65
42100	SHELL CURE OPERATOR	1	93.4	93.4	1.61
27600	PIN DRILL GRINDER OP	1	93.4	93.4	1.60
33900	AUTO-MULDER OPERATOR	2	92.4	92.4	1.39
34000	SQUEEZ/JULT MULDER OP	14	91.4	91.4	1.22
46200	CUPULA OPERATOR	1	90.4	90.4	1.06
28000	WHEEL GRINDER OPER	6	90.4	90.4	1.06
38500	MULLER OPER	1	89.0	89.0	0.69
45900	SHIFTER	3	89.0	89.0	0.55
42700	CORE GLIDER	1	89.0	89.0	0.46

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

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 M.C.	LEV. MEAN	WT. PUP. M.C.	
340	SQUEZ/JOLT MOLDER OP	14	92.7	92.7	109	109	
367	POURER	6	95.9	95.9	65	65	
450	DUMPOUT/SHAKEOUT 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	MHELLABRATOR 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	PIN DRILL 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 (M.C.)	44
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	43
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (M.C.)	43
LEVEL WEIGHTED POPULATION (MEAN)	419.0
LEVEL WEIGHTED POPULATION (M.C.)	419.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSUNNEL NOISE EXPOSURE AND IMPACT AVERAGES

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

SIC CODE	PLANT NO.	NU DATES SPECIFIED		
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN H.C.	DAILY NOISE DOSE MEAN H.C.
450	DUMPUUT/SHAKEOUT OP	2	103.1 103.1	6.13 6.13
467	WHEELABRATOR 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	INSPECTUR	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 CURE 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/JULT MOLDER OP	14	91.4 91.4	1.22 1.22
462	CUPULA 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 (H.C.) = 39

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332	PLANT NO. = I	NU DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	M.C. L.J.	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	WHEEL 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	WHEELABRATOR	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 JUB NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY

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

SIC CODE *	PLANT NO. *	NJ DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	N.C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.
1338	SQUEEZ/JOLT MOLDER	1	94.0	94.0	16	14.2	0.363
1438	INDUCT. FURNACE	1	100.0	100.0	10	0.5	0.166
1513	WHEEL GRINDER	1	92.0	92.0	6	0.0	0.194
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	0.031
1117	PN DRILL GRINDER	1	95.0	95.0	1	1.0	0.026
1450	SHELL CURE	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	0.00

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 L.J.	M.C. L.J.	NU.OF PERS.	PRIORITY INDEX	NORM. P.I.
1333	MOLDER	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 OVEN	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 JDU NO. 9635

EQUIPMENT NOISE CONTROL PRIORITY AVERAGES

THRESHOLD LEVEL = 40.0 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	NUM. PER.
1333	HOLDER	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 JUG 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 H.C.	LEV. MEAN	H.C. POP.
28200	TRIM GRINDER OPER	4	99.9	99.9	61	61
34000	SQUEL/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	89.7	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 MU. 9035

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 PERS.	MEAN SOUND LEVEL	MEAN DAILY NOISE DOSE	MEAN H.C.
28200	TRIM GRINDER OPER	4	98.3	3.17	3.17
50400	RADIAL SAW OPERATOR	2	90.3	3.17	3.17
34000	SQUEEZ/JOLT MOLDEK OP	4	95.4	2.12	2.12
42600	CORE SETTER	3	91.4	1.21	1.21
32500	FURNACE OPERATOR	4	91.3	1.20	1.20
42100	SHELL CORE OPERATOR	5	91.0	1.15	1.15
34100	FLOOR MULDER	2	90.4	1.00	1.00
50200	BAND SAW OPERATOR	2	90.3	1.04	1.04
42200	MU-BAKE CORE OPER	5	<90.0	0.87	0.87
44000	SHAKEOUT OPERATOR	2	<90.0	0.86	1.70
28100	STAND STUNE GRINDER	4	<90.0	0.74	0.81
44001	SHAKEOUT OPERATOR	4	<90.0	0.64	1.26
38700	POURER	2	<90.0	0.40	0.40
38701	POURER	2	<90.0	0.40	0.40
38500	MULLER OPER	1	<90.0	0.00	0.90
38501	MULLER OPER	1	<90.0	0.00	0.90
40200	ROTOBLAST OPERATOR	1	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332	PLANT NO. = 2	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	LOUD MEAN	LEVEL W.C.	LEV. WT. PUP. W.C.
282	TRIM GRINDER OPER	4	99.9	99.9	61 61
340	SQUEZ/JULT 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 OPERATOR	6	89.8	94.0	32 54
504	RADIAL SAW OPERATOR	2	99.9	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 SAW OPERATOR	2	92.5	92.5	15 15
385	MULLER OPER	2	88.7	91.0	9 12
402	ROTOBLAST 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

ENVIRONMENTAL PROTECTION AGENCY

DOJ JUB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

THRESHOLD LEVEL = 90.0 DBA
8-HR PERMISSIBLE LEVEL = 90.0 DBA
EXCHANGE RATE = 2 DBA

SIC CODE = 332	PLANT NO. = 6	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE LEVEL MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE M.C.
282	TRIM GRINDER OPER	4	98.3	3.17	3.17
504	RADIAL SAW OPERATOR	2	98.3	3.17	3.17
340	SQUEZ/JULT MOLDEK OP	4	95.4	2.12	2.12
426	CORE SETTER	3	91.4	1.21	1.21
325	FURNACE OPERATOR	4	91.3	1.20	1.20
421	SHELL CORE OPERATOR	5	91.0	1.15	1.15
341	FLOOR MOLDER	2	90.4	1.06	1.06
502	HAND SAW OPERATOR	2	90.3	1.04	1.04
422	NO-BAKE CORE OPER	5	<90.0	0.87	0.87
281	STAND STONE GRINDER	4	<90.0	0.74	0.81
440	SHAKEDOWN OPERATOR	6	<90.0	0.71	1.42
367	POURER	4	<90.0	0.40	0.40
385	MULLER OPER	2	<90.0	0.00	0.90
402	ROTBELAST OPERATOR	1	<90.0	0.00	0.00

TOTAL NUMBER OF PERSONNEL = 48
TOTAL NUMBER OVEREXPOSED (MEAN) = 40
TOTAL NUMBER OVEREXPOSED (M.C.) = 32

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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.G. LJ	NO.OF PERS.	PRIORITY NORM. INDEX	P.I.
1503	RADIAL SAW	1	102.0	102.0	26	6.6	0.137
1486	SHAKEOUT	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 SUB 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

NU DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	N.C. LJ	NO. OF PERS.	PRIORITY INDEX	NU RM. P.I.
1503	RADIAL SAW	1	102.0	102.0	6	6.0	0.231
1450	SHELL CURE	1	96.0	96.0	5	5.0	0.142
1338	SQUEE/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. 9632

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332		PLANT NO. = 2			NO DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.	
1500	SAH/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	SHAKEDOWN/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

BON 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	W.C. LJ	NO. OF PERS.	PRIORITY INDEX	NR.M. P.I.	
1500	SAW/METAL	2	98.0	98.0	8	8.0	0.308	
1448	CORE OVEN	2	95.0	95.0	5	5.0	0.142	
1333	MULDER	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 EXPUSURE AND IMPACT

EPA CRITERIA

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

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. WT. MEAN	POP. N.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	HI PRESS. MULDER 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	SAMMULLER OPERATOR	1	95.9	95.9	10	10
34200	PACEMAKER MOLDR 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

EIN JOB NO. 4632

PERSONNEL NOISE EXPOSURE AND IMPACT

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

SIC CODE	PLANT NO.	NU. OF PERS.	NU. DATES SPECIFIED	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN
32600	ARC FURNACE OPERATOR	1	100.4	100.4	4.22
44300	SHAKEOUT TABLE OPER	2	99.6	99.6	3.81
50500	CUT-OFF WHEEL OPER	2	98.3	98.3	3.17
39500	SANDSLINGER OPERATOR	2	97.6	97.6	2.87
36700	POURER	4	97.2	97.2	2.72
30200	ARC-AIR OPERATOR	0	97.0	97.0	2.64
38800	SANDMULLER OPERATOR	1	95.5	95.5	2.14
40500	SPRALBLAST OPERATOR	1	95.4	95.4	2.12
27700	PN DISC GRINDER OPER	4	93.0	94.4	1.52
34200	PACEMAKER MULDR OPER	1	91.4	91.4	1.21
33700	HI PRESS. MULDER OP	2	91.4	91.4	1.21
27800	PN CUNE GRINDER OPER	3	90.7	92.2	1.10
27900	SWING GRINDER OPER	3	90.4	90.4	1.06
33800	SHELLMULLER OPERATOR	4	89.0	89.0	0.87
42100	SHELL CURE OPERATOR	4	89.0	89.0	0.87
35000	MOLD MASH WORKER	1	89.0	89.0	0.87
27500	PN GRINDER OPER	6	89.0	89.0	0.76
28100	STANU STONE GRINDER	2	89.0	89.0	0.69
32700	INDUST. FURNACE OPER	2	89.0	89.0	0.60
43300	CORE ROOM WORKER	47	89.0	89.0	0.60
46700	WHEELABRATOR OPER	2	89.0	89.0	0.60

ENVIRONMENTAL PROTECTION AGENCY

88N JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

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

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL H.C.	LEV. WT. POP. MEAN	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 OPER	4	95.2	95.6	40	46
275	PN GRINDER OPER	6	90.7	90.7	36	36
443	SHAKEOUT TABLE OPER	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	SHELLMOLDER OPERATOR	4	91.5	91.5	27	27
421	SHELL CORE OPERATOR	4	91.5	91.5	27	27
278	PN CONE GRINDER OPER	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. MOLDR OP	2	92.8	92.8	15	15
405	SPIRALBLAST OPERATOR	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 MOLDR OPER	1	94.2	94.2	9	9
433	CORE ROOM WORKER	17	79.6	79.6	9	9
467	MHELLABRATOR OPER	2	87.8	87.8	8	8
350	MOLD HASH HURKER	1	92.5	92.5	7	7
327	INDUCT. FURNACE OPER	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

ENVIRONMENTAL PROTECTION AGENCY

BPN JUD NU. 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	JOB DESCRIPTION	PLANT NO.	NO. OF PERS.	MEAN	LEVEL W.C.	DAILY NOISE DOSE MEAN	W.C.	NO DATES SPECIFIED
326	ARC FURNACE OPERATOR	1	100.4	100.4	4.22	4.22		
443	SHAKEOUT TABLE OPER	2	99.0	99.0	3.81	3.81		
505	CUT-OFF WHEEL OPER	2	98.3	98.3	3.17	3.17		
395	SANUSLINDER 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	SPIKALBLAST 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 MULDR OPER	1	91.4	91.4	1.21	1.21		
337	HI PRESS. MULDER OP	2	91.4	91.4	1.21	1.21		
278	PN CUNE GRINDER OPER	3	90.7	92.2	1.10	1.30		
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 MASH 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	0.0		
433	CORE ROOM WORKER	17	<90.0	<90.0	0.00	0.0		
467	WHEELABRATOR OPER	2	<90.0	<90.0	0.00	0.0		

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

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB NO. 9635

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332	PLANT NO. = 3	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	W.C. L.J.	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 STUNE 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	98.0	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

B&N JOB NO. 9630

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. *	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	M.C. L.J.	NO. OF PERS.	PRIORITY INDEX	NUKM. P.I.	
1160	ARC AIR GOUGERS	1	102.0	102.0	0	6.0	0.188	
1437	ARC FURNACE	1	102.0	102.0	5	4.1	0.148	
1118	PN DISC GRINDER	2	98.0	94.4	4	4.0	0.125	
1493	BACK. ONLY CONTR.	0	98.0	98.0	10	3.5	0.109	
1119	PN CUNE GRINDER	3	95.7	97.2	3	3.0	0.094	
1512	SWING 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	0.02	
1195	SPIRALBLAST	1	98.0	98.0	1	0.6	0.018	
1387	SANUSLINGER	1	98.0	98.0	2	0.3	0.016	

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332		PLANT NO. = 3			NU DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	W.C. L.J.	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	HELD/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	3.1	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

DOE 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	EQUIPMENT	PLANT NO.	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	6	96.3	97.5		7	7.0	0.419
1484	SHAKEOUT/DUMPOUT	2	101.5	101.5		17	0.6	0.208
1150	HELD/BURN/GUGGING	1	102.0	102.0		6	6.0	0.168
1434	FURNACE	2	94.5	94.5		5	4.1	0.128
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	MOLDER	3	89.3	89.3		3	1.3	0.041
1371	MULLER	1	90.0	90.0		1	0.9	0.027
1187	ABRASIVE BLASTING	1	98.0	98.0		1	0.6	0.018
1385	SANDSLINGER	1	90.0	98.0		2	0.3	0.010
1392	HYDRAULIC PUMP	1	90.0	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	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. MT. PUP. MEAN 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 STUNE 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	HULLER OPER	1	90.2	92.5	5 7

ENVIRONMENTAL PROTECTION AGENCY

BBN 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. = 4	NL DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE MEDIAN
28000	WHEEL GRINDER OPER	5	96.8	95.8	2.57
33900	AUTO-MULDER OPERATOR	2	95.4	95.4	2.11
50500	CUT-JIFF WHEEL OPER	2	94.9	95.6	1.98
34000	SQUEE/Z/JOLT MULDER OP	7	93.9	94.6	1.72
42100	SHELL COKE OPERATOR	8	93.4	93.4	1.01
28100	STAND STONE GRINDER	5	90.2	90.3	1.03
38500	MULLER OPER	1	<90.0	<90.0	0.66
40200	KOTUBLAST OPERATOR	2	<90.0	90.2	0.02
44000	SHAKEOUT OPERATOR	8	<90.0	<90.0	0.57
36800	MELTER/POURER	6	<90.0	<90.0	0.00

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.	MEAN	LEVEL H.C.	LEV. MEAN	WT. H.C.
421	SHELL CORE OPERATOR	8	94.7	94.7	77	77
340	SQUEZ/JOLT MOLDER OP	7	95.2	95.8	71	75
280	WHEEL 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-MOLDER OPERATOR	2	96.1	95.1	22	22
505	CUT-OFF WHEEL OPER	2	96.1	96.8	22	23
402	ROTOBLAST OPERATOR	2	89.3	92.1	10	14
385	MULLER OPER	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

BON JUB NO. 4035

PERSUNNEL 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 MEAN	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE H.C.	
280	WHEEL GRINDER OPER	5	90.8	95.8	2.57	2.57
339	AUTO-MOLDEK OPERATOR	2	90.4	95.4	2.11	2.11
505	CUT-OFF WHEEL OPER	2	94.9	92.6	1.98	2.18
340	SQUEZ/JOLT MOLDEK 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 STUNE GRINDER	5	90.2	92.3	1.03	1.36
385	MULLER OPER	1	<90.0	<90.0	0.66	0.98
402	KOTUBLAST OPERATOR	2	<90.0	<90.2	0.62	1.03
440	SHAKEOUT OPERATOR	8	<90.0	<90.0	0.57	0.57
368	MELTER/PUGGER	6	<90.0	<90.0	0.00	0.0

TOTAL NUMBER OF PERSONNEL = 46
TOTAL NUMBER OVEREXPOSED (MEAN) = 29
TOTAL NUMBER OVEREXPOSED (H.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 L.J.	H.C. L.J.	NO. OF PERS.	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 STUNE GRIND	2	92.5	96.0	5	2.7	0.059
1374	MULLER	2	92.0	94.8	47	2.7	0.058
1117	PN 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

BON 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. = 4	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	M.C. LJ	NO. OF PERS.	PRIORI TY INDEX	NUKM. P.I.
1450	SHELL COKE	1	90.0	90.0	8	8.0	0.276
1338	SQUEZ/JULT MOLDER	2	96.0	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	STANU STUNE GRIND	2	92.0	96.0	5	2.8	0.095
1335	AUTO-MULDER	1	97.0	97.0	2	2.0	0.069
1507	CUT-UFF WHEEL	2	97.0	98.2	2	2.0	0.004

ENVIRONMENTAL PROTECTION AGENCY

BBN 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	H.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.i.
1333	MOLDER	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

BON 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 L.J.	M.G. L.J.	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1333	MOLDER	3	96.7	97.4	9	4.0	0.310
1448	CURE OVEN	2	89.5	89.5	8	6.0	0.276
1510	ELECTRIC GRINDERS	3	95.7	94.2	10	6.9	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

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

PERSONNEL NOISE EXPOSURE AND IMPACT

EPA CRITERIA

SIC CODE = 332	PLANT NO. = 5	NU DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND MEAN	LEVEL N.C.	LEV. WT. MEAN	PUP. N.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	SHAKEDUT 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 OPERATOR	2	93.4	96.9	16	23
40300	HAND BLASTER	2	92.3	92.3	15	15
46700	MEMLABRATOR 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	88.4	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 #	PLANT NO. #	5	NO DATES SPECIFIED	
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN N.C.	LEV. WT. PUP. MEAN 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	85.9 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	ORKLIFT OPERATOR	2	76.0 78.6	0 0
26502	LABORER	2	<75.0 <75.0	0 0

ENVIRONMENTAL PROTECTION AGENCY

DBN 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. = 5	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	W.C.
31003	ARC AIR GOUGER	2	106.1	112.3	9.37
31001	ARC AIR GOUGER	2	105.2	109.4	8.20
31002	ARC AIR GOUGER	4	105.2	109.4	8.20
31800	GAS BURNER	2	104.6	108.8	7.61
31900	POWDER BURNER	2	104.6	108.8	7.61
31000	ARC AIR GOUGER	2	102.8	106.9	5.86
44300	SHAKEOUT TABLE OPER	4	98.6	101.2	3.29
50500	CUT-OFF WHEEL OPER	2	98.4	98.4	3.20
32000	ARC FURNACE OPERATOR	4	98.9	101.9	2.61
34300	MOLDMASTER OPERATOR	6	96.9	96.7	2.61
30303	ARC WELDER/A	10	94.1	95.3	1.76
34102	FLOOR MULDER	4	93.9	95.1	1.72
50500	TABOR CUT-OFF SAW OP	2	93.4	93.4	1.60
40201	ROTOBLAST OPERATOR	2	93.3	96.9	1.59
33001	LADLE PRE-HEATER	2	92.7	103.7	1.46
40200	ROTOBLAST OPERATOR	2	92.4	95.0	1.40
34103	FLOOR MULDER	4	92.3	93.7	1.38
27900	SWING GRINDER OPER	4	92.1	92.1	1.34
27500	PN GRINDER OPER	62	91.6	93.6	1.24
30300	ARC WELDER/A	10	91.1	95.3	1.17
40300	HAND BLASTER	2	90.0	90.0	1.00
26402	SERVICEMAN	4	<90.0	<93.0	0.99
40400	MACHINE BLASTER	4	<90.0	<90.0	0.99
26406	SERVICEMAN	4	<90.0	91.4	0.75
33100	LADLE SKIMMER	2	<90.0	<90.0	0.57
20202	FORKLIFT OPERATOR	2	<90.0	<90.0	0.46
20200	FORKLIFT OPERATOR	2	<90.0	<90.0	0.34
36700	POURER	8	<90.0	<90.0	0.34
34101	FLOOR MULDER	4	<90.0	<93.0	0.17
26501	LABOREK	2	<90.0	<90.0	0.11
33000	LADLE PRE-HEATER	2	<90.0	<90.0	0.11
48002	OVERHEAD CRANE OPER	2	<90.0	<90.0	0.11
26600	HELPER	6	<90.0	<90.0	0.11
20201	FORKLIFT OPERATOR	2	<90.0	<90.0	0.00
20300	WORKSAVER OPERATOR	6	<90.0	<90.0	0.00
26400	SERVICEMAN	2	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BBN 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. #	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	STUND LEVEL MEAN H.C.	DAILY NOISE DOSE MEAN H.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	0.0
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	LABURER	2	<90.0 <90.0	0.00	0.0
28100	STAND STUNE GRINDER	10	<90.0 <90.0	0.00	0.0
30301	ARC WELDER/A	4	<90.0 <90.0	0.00	0.0
30302	ARC WELDER/A	2	<90.0 <90.0	0.00	0.0
33002	LADLE PRE-HEATER	2	<90.0 <90.0	0.00	0.42
33101	LADLE SKIMMER	2	<90.0 <90.0	0.00	0.0
34100	FLOOR MOLDER	2	<90.0 <90.0	0.00	0.0
46100	INSPECTOR	2	<90.0 <90.0	0.00	0.0
46700	WHEELBARROW 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 N.C.	LEV. MEAN	N.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 COUGER	10	106.0	110.2	240	310
341	FLOOR MULDER	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	SWING 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	ORKLIFT OPERATOR	6	84.8	86.5	20	25
506	TABOR CUT-OFF SAM 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	WHELLABRATOR 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

BBN JOB NO. 9635

PERSUNNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332

PLANT NO. = 5

NO DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL	248
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

ENVIRONMENTAL PROTECTION AGENCY

BON 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 = 332	PLANT NO. = >	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	W.C.
310	ARC AIR COUGER	10	105.0	109.2	7.96
318	GAS BURNER	2	104.6	106.8	7.61
319	POUDER BURNER	2	104.6	108.8	7.61
443	SHAKEDOWN TABLE OPER	4	98.6	101.2	3.29
505	CUT-OFF WHEEL OPER	2	98.4	98.4	3.20
326	ARC FURNACE OPERATOR	4	98.4	101.9	2.61
343	MOLDMASTER OPERATOR	6	98.9	98.7	2.61
506	TABOR CUT-OFF SAM OP	2	93.4	93.4	1.60
402	ROTOBLAST OPERATOR	4	92.9	98.4	1.49
279	SWING GRINDER OPER	4	92.1	92.1	1.34
275	PN GRINDER OPER	62	91.8	93.6	1.24
303	ARC HELDVER/A	26	90.9	95.1	1.13
403	HAND BLASTER	2	90.0	90.0	1.00
404	MACHINE BLASTER	4	<90.0	<90.0	0.99
341	FLOOR MOLDER	14	<90.0	93.7	0.44
330	LADLE PRE-HEATER	6	<90.0	95.9	0.52
367	POURER	8	<90.0	<90.0	0.34
331	LADLE SKIMMER	4	<90.0	<90.0	0.29
202	FORKLIFT OPERATOR	6	<90.0	<90.0	0.27
264	SERVICEMAN	28	<90.0	<90.0	0.25
266	HELPER	6	<90.0	<93.0	0.11
265	LABORER	6	<90.0	<93.0	0.04
480	OVERHEAD CRANE OPER	8	<90.0	<90.0	0.03
203	WORKSAVER OPERATOR	6	<90.0	<90.0	0.00
281	STAND STUNE GRINDER	10	<90.0	<90.0	0.00
461	INSPECTOR	2	<90.0	<90.0	0.00
467	WHEELABRATOR OPER	4	<90.0	<90.0	0.00
534	PRESS OPERATOR	6	<90.0	<90.0	0.00

ENVIRONMENTAL PROTECTION AGENCY

BUN JUB NU. 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 NU. = >

NU DATES SPECIFIED

TOTAL NUMBER OF PERSONNEL = 248
TOTAL NUMBER OVEREXPOSED (MEAN) = 132
TOTAL NUMBER OVEREXPOSED (n.c.) = 136

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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	H.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	24.5	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	89.6	30	6.2	0.025
1471	BACK/DVERHO 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	SWING 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-MEAT	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	4.0	0.011
1442	FURNACE	1	86.0	86.0	40	2.4	0.010
1509	TABOR CUT-OFF WHL	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. 9632

EQUIPMENT NOISE IMPACT

EPA CRITERIA

SIC CODE = 332		PLANT NO. = 5			NO DATES SPECIFIED		
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN L _A	M.C. L _A	NO.OF PERS.	PRIORITY NUM. INDEX	P.I.
1802	FORKLIFT	1	83.0	83.0	2	0.2	0.001

ENVIRONMENTAL PROTECTION AGENCY

BON JUB NU. 4635

EQUIPMENT NOISE CONTROL PRIORITY

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

SIC CODE *	PLANT NO. *	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	W.C. LJ	NO.UF PEKS.	PRIORITY INDEX	NORM. P.I.
1160	ARC AIR GOUVERS	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	18.8	0.143
1119	PN CONE GRINDER	4	93.5	94.8	62	10.8	0.062
1117	PN DRILL GRINDER	4	94.0	95.8	62	10.8	0.062
1146	PN TAMPER	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	SWING GRINDER	1	93.7	93.7	4	4.0	0.030
1341	MOLDMASTER	3	101.0	103.6	6	3.7	0.026
1375	SANU HOPPER/VIB	5	97.0	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	TABUR 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 L ₁	W.C. L ₁	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	MOLDEK	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	0.025
1135	PNEUMATIC CHISEL	3	104.3	115.3	2	1.9	0.0
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

BEN JUG 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	PLANT NO.	NO. DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN LJ	N.C. LJ	NO. OF PERS.	PRIORITY INDEX	NORM. P.I.
1103	PNEUMATIC GRINDER	19	95.4	90.1	48	52.0	0.470
1158	HELD/BURN/GOUGING	6	100.3	104.5	76	34.3	0.400
1144	PNEUMATIC TAMPER	2	101.0	102.4	8	7.2	0.055
1484	SHAKEOUT/DUMP OUT	2	100.0	102.8	12	4.5	0.034
1434	FURNACE	7	91.3	90.4	4	4.0	0.030
1187	ABRASIVE BLASTING	4	94.0	92.5	4	4.0	0.030
1510	ELECTRIC GRINDERS	2	91.3	91.3	6	4.0	0.030
1505	CUT-OFF WHEEL	2	97.0	97.5	4	4.0	0.030
1393	MOLDER	8	102.7	107.8	6	3.7	0.028
1371	MULLER	5	97.0	100.1	6	2.3	0.017
1135	PNEUMATIC CHISEL	3	104.3	112.3	2	4.0	0.015

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 6

ENVIRONMENTAL PROTECTION AGENCY

BEN 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.	STUND MEAN	LEVEL W.C.	LEV. MT. MEAN	PUP. W.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 OPER	1	89.3	90.7	5	0
40200	KOTOBLAST OPERATOR	1	69.2	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	83.2	0	0
42201	NO-BAKE CORE OPER	1	<75.0	78.2	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 = 2 DBA

SIC CODE = 332	PLANT NO. = 0	NO DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PEKS.	MEAN	STANDARD DEVIATION	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE STDEV
27501	PN GRINDER OPER	3	90.0	91.9	1.09	1.30
27500	PN GRINDER OPER	1	<90.0	<90.0	0.52	0.70
40200	ROTOBLAST OPERATOR	1	<90.0	<90.0	0.35	0.35
34000	SQUEZ/JULT MOLDER OP	5	<90.0	<90.0	0.31	0.31
42900	UDL-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	CUPULA 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	UDL-BAKE CORE OPER	1	<90.0	<90.0	0.00	0.0
42202	UDL-BAKE CURE OPER	1	<90.0	<90.0	0.00	0.0

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4635

PERSUNNEL NOISE EXPUSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332		PLANT NO. = b	NO DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	NOISE MEAN	LEVEL H.C.	LEV. MEAN	WT. PUP. H.C.
275	PN GRINDER OPER	4	92.3	93.5	30	34
340	SQUEZ/JOLT MOLDER OP	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 CURE OPER	2	<75.0	79.2	0	0

TOTAL NUMBER OF PERSONNEL 23
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (MEAN) 22
TOTAL NUMBER OF PERSONNEL WITH LEQ > 75 (H.C.) 23
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN) 3
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (H.C.) 4
LEVEL WEIGHTED POPULATION (MEAN) 75.0
LEVEL WEIGHTED POPULATION (H.C.) 80.2

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 = 332	PLANT NO. = 6	NO DATES SPECIFIED				
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	SOUND LEVEL MEAN	DAILY NOISE DOSE MEAN	W.C.	
275	PN GRINDER OPER	4	<90.0	91.0	0.45	1.15
402	KOTOBLAST OPERATOR	1	<90.0	<90.0	0.35	0.35
340	SQUEZ/JOLT MOLDER OP	5	<90.0	<90.0	0.31	0.31
429	OIL-BAKE COREMAKER	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 (W.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	W.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	95.0	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 HOLDER	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 CUNE GRINDER	2	95.0	95.0	3	0.7	0.030
1175	HELD/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

DSW JUB MU. 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 NU. =	5	NO DATES SPECIFIED			
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO.OF UNITS	MEAN LJ	N.C. LJ	NO.OF PERS.	PRIORITY INDEX	NORM. P.I.
1120	PN WHEEL GRINDER	6	95.5	97.6	3	2.2	0.724
1119	PN CUNE GRINDER	2	95.0	95.0	3	0.8	0.276

ENVIRONMENTAL PROTECTION AGENCY

B6N 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 L.J.	M.C. L.J.	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/GOUGING	1	86.0	86.0	2	0.3	0.014
1497	WHEELABRATOR	1	90.2	90.4	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.UF UNITS	MEAN LJ	M.C. LJ	NO.UF PERS.	PRIORITY INDEX	NU.RM. P.i.
1103	PNEUMATIC GRINDER	8	95.5	97.2	6	3.0	1.000

Report 4535

Bolt Beranek and Newman Inc.

Plant No. 7

ENVIRONMENTAL PROTECTION AGENCY

BBN JUB 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 H.C.	LEV. MEAN	H.T. H.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	98.0	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 STUNE 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 MULDER 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	SMELL COKE OPERATOR	1	87.5	88.6	3	4

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 4032

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	NU DATES SPECIFIED			
JOB CODE	JOB DESCRIPTION	NO. OF PERS.	LOUDNESS LEVEL MEAN	DAILY NOISE DOSE MEAN	W.C.
31000	ARC AIR GOUGER	2	102.3	105.1	5.51
50500	CUT-OFF WHEEL OPER	3	90.3	90.3	2.40
27500	PN GRINDER OPER	10	92.5	94.0	1.42
28100	STAND STONE GRINDER	2	92.3	94.3	1.38
27900	SHING GRINDER OPER	1	90.3	90.3	1.04
34000	SQUEZ/JOLT MOLDER OP	2	<90.0	91.5	0.90
36800	MELTER/POURER	3	<90.0	94.0	0.79
26500	LABORER	1	<90.0	<90.0	0.66
34001	SQUEZ/JOLT MOLDER OP	3	<90.0	<90.0	0.35
26501	LABORER	6	<90.0	<90.0	0.13
30300	ARC WELDER/A	3	<90.0	<90.0	0.11
42200	NO-BAKE CORE OPER	5	<90.0	<90.0	0.05
42100	SHELL CORE OPERATOR	1	<90.0	<90.0	0.00
43300	CORE ROOM WORKER	7	<90.0	<90.0	0.00
46700	MHELLABRATOR OPER	3	<90.0	<90.0	0.41

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NO. 9635

PERSONNEL NOISE EXPOSURE AND IMPACT AVERAGES

EPA CRITERIA

SIC CODE * 332

PLANT NO. * 7

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	MEAN	LEVEL W.C.	LEV. MEAN	WT. PUP. W.C.
275	PN GRINDER OPER	10	94.6	96.1	95	111
310	ARC AIR GOUGER	2	105.8	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	LABOKER	7	67.9	90.0	29	39
433	CORE ROOM WORKER	7	67.8	86.6	28	32
422	NO-BAKE CORE OPER	5	87.4	87.4	19	19
281	STAND STONE GRINDER	2	94.4	94.4	18	18
368	MELTER/POURER	3	90.7	95.7	18	32
467	WHEELABRATOR OPER	3	86.0	88.4	12	13
303	ARC WELDER/A	3	87.0	87.2	10	11
279	SWING GRINDER OPER	1	92.7	92.7	7	7
421	SMELL CURE OPERATOR	1	87.9	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 (W.C.)	52
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (MEAN)	27
TOTAL NUMBER OF PERSONNEL WITH LEQ > 90 (W.C.)	27
LEVEL WEIGHTED POPULATION (MEAN)	361.0
LEVEL WEIGHTED POPULATION (W.C.)	426.2

ENVIRONMENTAL PROTECTION AGENCY

EON 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. = ?

NO DATES SPECIFIED

JOB CODE	JOB DESCRIPTION	NO. OF PERS.	AVERAGE SOUND LEVEL	DAILY NOISE DOSE MEAN	DAILY NOISE DOSE H.C.
310	ARC AIR GOUGER	2	102.3	105.1	5.51
505	CUT-OFF WHEEL OPER	3	96.3	95.3	2.40
275	PIN GRINDER OPER	10	92.5	94.0	1.42
281	STANU STUNE GRINDER	2	92.3	92.3	1.38
274	SWING GRINDER OPER	1	90.3	90.3	1.04
368	MELTER/PLURER	3	<90.0	94.0	0.79
340	SQUEZ/JULT MULDER OP	5	<90.0	<90.0	0.57
265	LABUREK	7	<90.0	<90.0	0.21
303	ARC HELVERIA	3	<90.0	<90.0	0.11
422	NO-BAKE COKE OPER	5	<90.0	<90.0	0.05
421	SHELL COKE OPERATOR	1	<90.0	<90.0	0.00
433	CORE ROOM WORKER	7	<90.0	<90.0	0.00
467	WHEELABRATOR OPER	3	<90.0	<90.0	0.00

TOTAL NUMBER OF PERSONNEL = 22
 TOTAL NUMBER OVEREXPOSED (MEAN) = 18
 TOTAL NUMBER OVEREXPOSED (H.C.) = <3

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 9635

EQUIPMENT NOISE IMPACT

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 PEKS.	PRIORITY INDEX	NORM. 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 MHEEL GRINDER	1	95.3	95.3	10	3.5	0.068
1338	SQUEZ/JOLT MOLDER	6	49.0	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-MEAT	2	91.0	92.4	50	1.8	0.035
1517	STAND STUNE 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

BBN JUB NO. 9630

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	% C. LJ	NO. OF PEKS.	PRIORITY INDEX	NORM. P.I.	
1119	PN CUNE GRINDER	5	97.0	99.5	10	2.6	0.310	
1120	PN WHEEL GRINDER	1	95.3	95.3	10	4.4	0.245	
1508	CUT-OFF WHEEL	2	100.0	100.0	3	3.0	0.167	
1180	ARC AIR GOUGERS	2	106.0	106.8	2	2.0	0.111	
1517	STAND STONE GRIND	1	95.0	95.0	2	2.0	0.111	
1512	SWING GRINDER	2	94.0	94.0	1	1.0	0.056	

ENVIRONMENTAL PROTECTION AGENCY

BBN JOB NU. 9635

EQUIPMENT NOISE IMPACT AVERAGES

EPA CRITERIA

SIC CODE = 332	PLANT NO. = 7	NO DATES SPECIFIED					
EQUIP. CODE	EQUIPMENT DESCRIPTION	NO. OF UNITS	MEAN L.J.	W.C. L.J.	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	HELD/BURN/GOUGING	5	92.2	95.5	31	3.9	0.075
1333	MULDER	7	97.0	100.6	34	3.8	0.074
1484	SHAKEOUT/DUMPOUT	7	97.7	101.2	51	3.3	0.004
1505	CUT-OFF WHEEL	2	100.0	100.0	8	2.9	0.026
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

DBN JUB 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. = 7

NU DATES SPECIFIED

EQUIP. CODE	EQUIPMENT DESCRIPTION	NU.OF UNITS	MEAN LJ	N.C. LJ	NU.OF PEKS.	PRIORI TY INDEX	NU.R. P.I.
1103	PNEUMATIC GRINDER	8	98.4	100.0	20	10.0	0.526
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