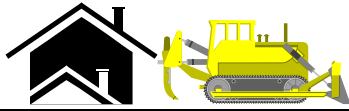


WorkSafeBC Hearing Loss Prevention Section - October 3, 1997

(updated June 2002)

## Noise Survey Project Report -- Phase 2



*Are noise exposures in these industries higher than the limits in the new Noise Regulations?*

### **“Borderline” Noise Exposures**

This project is a continuation of the 1996 noise survey initiated as a result of the lowered exposure limit (85 dBA Lex) under the new Noise Regulations. The industries or occupations selected for sampling were those with worker noise exposures that needed updating (construction) or were unknown, but estimated to be between 85 and 90 dBA Lex; therefore, likely to now be affected by the new exposure limit. A student of the UBC Occupational Hygiene Masters Programme was hired, for their summer placement, to obtain personal noise exposure samples of workers in the following industries: fast food kitchens, retail food (meat and bakery departments), roofing (tar/gravel, membrane, shingle), construction (mobile equipment, building).

Employers who participated in the project were sent a summary report of the exposure results for their workplaces and the industry averages obtained. As well, they were provided with copies of relevant hearing conservation publications.

Results of the sampling are summarized on the reverse of this sheet. Mean noise exposures which **exceeded** 85 dBA Lex are in **bold** figures. This information sheet may be useful for employers in these industries, especially if the firm is considering asking for an exemption from noise measurement under O.H. & S. Regulation, Part 7 Section 7.4. Some highlights of the results are:

**Fast Food Kitchen Workers:** Only 3 out of 21 workers sampled had exposures just over the limit. The average exposure of 81 dBA indicates exposures for workers in this industry are typically below the limit.

**Retail Food Bakery Workers:** No exposures exceeded the limit.

**Retail Food Meat Cutters:** The majority of workers sampled had exposures well below the limit. Two out of three meat cutters at one location had exposures between 85 and 90 dBA. This location has high production demands closer to wholesale meat cutting operations than is typical of most retail food locations.

**Roofing:** Workers in this industry are likely to move between the three types of roofing work sampled. The average exposure for workers in all three types is 88 dBA Lex and exceeds the limit. Therefore, employers in this industry should have a hearing conservation program for these workers.

**Tar/Gravel:** Results for this survey confirm earlier results. All but two workers had exposures well above the limit. Previous results are included in this summary.

**Membrane:** All but one worker had exposures exceeding the limit.

**Shingle:** Exposures for workers doing this type of roofing were split with half exceeding the limit and half below the limit.

**Construction (Building):** All occupations sampled had average exposures that exceeded 85 dBA Lex, including electricians, plumbers, labourers, and first aid/foremen. This data tends to confirm that the entire construction site must be posted as a noise hazard area and hearing protection use needs to be enforced. All workers who are typically on the site on a daily basis would receive hazardous noise exposures and must be included in a complete hearing conservation program.

**Construction (Mobile Equipment):** Results confirmed that noise exposures vary significantly depending on the year, model, and operating conditions of mobile equipment used in road and building construction.

Occupation	Mean L <sub>ex</sub> dBA	S.D.	Sample Size	Range dBA L <sub>ex</sub>
<b><i>Fast Food/Food Concession 761035</i></b>				
Kitchen Workers	81	3	21	75-87
<b><i>Retail Food 741025</i></b>				
Bakery Worker	82	1.9	20	78-85
Meat Cutters	82	3.5	18	77-90
<b><i>Roofing 721051, 721036</i></b>				
Membrane	<b>86</b>	2.8	5	82-89
Shingle	<b>85</b>	4.4	6	81-93
Tar/Gravel	<b>90</b>	4.1	15	84-98
All roofers combined	<b>88</b>	4.2	26	82-98

Occupation	Mean L <sub>ex</sub> dBA	S.D.	Sample Size	Range dBA L <sub>ex</sub>
<b><i>Building Construction 721028</i></b>				
Carpenter	<b>90</b>	5.1	4	86-97
Labourer	<b>89</b>	4.7	3	84-94
Concrete former/finisher	<b>93</b>	9.7	4	83-105
Drywall installer	<b>90</b>	1.0	3	89-91
Steel stud installer	<b>96</b>	3.5	2	93-98
Plumber	<b>90</b>	0	2	same
Iron/rebar worker	<b>95</b>	4.5	1	
Elevator installer	<b>96</b>		1	
Hoist operator	<b>100</b>		1	
Tile setter	<b>92</b>		1	
<b><i>Mobile Equipment Operators 7230</i></b>				
Dozer (enclosed and open)	<b>96</b>	5.2	5	89-103
Excavator	<b>87</b>	1.9	5	86-90
Offroad Truck	82	2.0	3	82-84
Front End Loader	<b>88</b>	4.4	2	85-91
Labourer (road construction)	<b>86</b>	0.8	2	85-86
Open Packer(Tampo RP58-D)	<b>95</b>		1	
Enclosed Pack(Cat SC560C)	83		1	
Cat.140H Grader(enclosed)	82		1	
Airtrack drill op.	<b>106</b>		1	
Concrete Batch Plant Op.	81		1	
Scraper Op.	<b>96</b>		1	
Skidstear Op(CASE 1840)	<b>96</b>		1	
Rock Crusher Op.	<b>98</b>		1	
Mobile Crane Op.	<b>100</b>	3.5	2	97-102

