

10. GB Edd...

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TO: C. C. Neely 511/2000

SUBJECT: ASBESTOS VS NON-ASBESTOS

Issue: The higher cost of non-asbestos gasketing is less than the extra handling cost of asbestos. To properly dispose of asbestos gasketing it should be wetted for removal, bagged after removal, and taken to a disposal site for landfill. The following calculations show how much time at a base labor rate of \$15/hour could be spent on these extra steps to reach breakeven on a cost only basis. Also a calculation is made on a \$35/hour sold service rate basis.

Gasketing:

2" - 150# Gasket

Asbestos	10¢
Non-asbestos	16¢
Grafoil	\$1.00

Non-asbestos:	$\frac{[16¢ - 10¢]}{[\$15/\text{Hour}]}$	$\frac{[60 \text{ Minutes}]}{[\text{Hour}]}$	= 0.24 minutes
	@\$35		= 0.10 minutes

Grafoil:	$\frac{[\$1.00 - 10¢]}{[\$15/\text{Hour}]}$	$\frac{[60 \text{ Minutes}]}{[\text{Hour}]}$	= 3.6 minutes
	@\$35		= 1.5 minutes

In other words, in the worst case if more than 3.6 minutes were required to wet, bag, and dispose of an asbestos gasket it would be more expensive.

UCC 015700



Packing:

	<u>\$/Lb.</u>	<u>Changes/Year</u>	<u>\$/Yr.¹</u>
Asbestos	10	5	50
Grafoil	200	1 - 2	300

(1) Assume 1 lb. of packing is used per change.

Consider a very conservative case. Assume the total time to change packing is 1 hour and each change requires 1 lb. of packing.

Asbestos:

$[(\$10/\text{Lb.})(1 \text{ Lb./Change}) + (\$15/\text{Hr.})(1 \text{ Hr./Change})] \times 5 \text{ Changes/Year} = \$125/\text{Yr.}$

@ \$35/Hr. = \$350/Yr.

Grafoil:

$[(\$200/\text{Lb.})(1 \text{ Lb./Change}) + (\$15/\text{Hr.})(1 \text{ Hr./Change})] \times 1.5 \text{ Changes/Year} = \$320/\text{Yr.}$

@ \$35/Hr. = \$225/Yr.

Breakeven:

@ \$15/Hr. $\$320 = (\$10 + \$15 X) 5$

X = 2.56 Hours

@ \$35/Hr. $\$350 = (\$10 + \$35 X) 5$

X = 1.56 Hours

Breakeven does not occur until 2.56 hours per packing change at the \$15/Hr. rate, or 1.56 hours at the \$35/hour rate. Either is easy to imagine when all factors are included. Some are the following:

- o Receive the job assignment
- o Inspect the job for condition and correct packing
- o Get the necessary packing (may require ordering material)
- o Get the tools for the job
- o Repack the valve (frequently leaking must be stopped before work can begin)
- o Clean up the job
- o Put away materials and tools
- o Seek the next job

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