PAST PRESENT AND FUTURE OF PINE SHAKES

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PAST:

Pine shakes started being used as a roofing material in the early 1900's. As the story goes cedar was easier to produce and therefore less expensive to produce and as such became the product of choice and the use of pine died out and was hardly used for around 50 years, until around 1984.

In 1984, a company in Nipawon Saskatchewan called Trirak Industries Corporation began to manufacture pine shakes. C.M.H.C. became involved and in March of 1985 CMHC issued an evaluation report (# 10904 attached). The report states:

- Roofs must be minimum 4/12 pitch
- Used in areas where annual precipitation does not exceed 500 mm

Inspections were performed by CMHC Technical Staff on ten buildings of various ages, in 1985 as follows:

Year built	Age of building in 1985
1930	55 years old
1938	47 years old
1939	46 years old
1940	45 years old
1942	43 years old
1945	40 years old
1953	32 years old

Samples were obtained from these buildings and apart from being stained and showing signs of wear on the exposed portion, there was no

decay to the point of having roof failure. The roof decks were still in good condition showing the shakes had performed well.

Based on their findings, the Materials Evaluation Department stated that they believed the shakes would perform satisfactorily.

With the CMHC evaluation report in hand TRIRAC went to market with the advantages of pine shakes.

The product was well received with contractors saying that they liked the consistent quality of the pine compared to cedar.

It was an uphill battle to compete against the public's knowledge that cedar was a proven performer!

TRIRAC produced both "Treated" and "Untreated" Shakes. In order to make a statement in the market about how good Pine Shakes were, they issued a 25 year warranty, on untreated shakes and a 50 year warranty on treated shakes. These warranties helped open up the market to pine shakes but it was still an uphill battle.

Around 1991, a major storm hit Florida and the price of cedar jumped from $80.00 per square to $125.00 per square, in just one week. This sudden and dramatic increase in the price of cedar was all it took to convince builders to make the switch to Pine Shakes.

At a $500.00 per house difference in price, the builders were still willing to stay with the proven cedar but for $1600.00 difference the switch was on. And why not? CMHC had evaluated the product and pineshakes had a 25 year warranty.

At this point other mills were going into the business and TRIRAC had gone bankrupt. Some of the new manufacturers had warranties and some did not.

In 1993, CSA 118.3-93 was put in place. This made it easier for people to get into pine shake manufacturing than under CMHC. Many mills have come and gone and today there are only about five major mills producing pine shakes. That brings us to the present.

The Present:

About two years ago, black stains began showing up on roofs that were around six years old, in the Edmonton area. These stains were identified as brown rot. It forms in the area of the shake which is the slowest in drying. It is not known if there are any spray applied treatments which can arrest this type of decay. Pressure treatment is the only known way to ensure the problem does not occur.

Last year, the media began publishing articles about the fungus and rotting roof problems.

Headlines state:

- Check Your Shakes
- Untreated Pine Proves No Great Shakes as Roofing
- Pine Shake Headache
- Fungus Eating Away at Roofs
- Residents Plan to Sue Over Rotting Roofs

All of this media attention really got everyone concerned and justly so!

Committees were formed. Builders, Government and Industry began to explore if there was a problem and if so what to do about it. Research was done and compiled. It was found that Northern Alberta had a greater problem than Southern Alberta but the problem did exist to some degree, everywhere.

It was the consensus of the group that Appendix D of CSA 118.3 be made mandatory; that being pressure treating to a CSA 080 standard.

In January of 1998, the recommendation was accepted by Alberta Labour and as of June 1, 1998 all shakes had to be treated, allowing for a 3 month phase in period. They also recommended that untreated shakes be inspected every 5 years.

In Edmonton, roofs that were only 6 to 8 years old began being replaced. A consumer action group formed, complete with an Internet site.

(www.picturethisgraphics) This group contends that the government is responsible for their rotting roofs because they allowed the materials to be used and are therefore liable and should have to pay a portion of their re-roof cost.

We have fixed the old problem by pressure treating the pine shakes but this is not the end of the story. We still have:

-Bad publicity
-Continued action by Consumer Groups
-No known solution to the existing problem with untreated pine shake roofs
-Consumers mistrust of codes and industry

I have heard from Roofers, in the Edmonton area, that when a Consumer has made the decision to re-roof his untreated pine shake roof, that they are not interested in the option of using Treated Pine Shakes. They were told untreated pine shakes were good and they weren't. So why should they believe us when we tell them Treated Pine Shakes are good. **Consumer confidence must be regained!**

This brings us to the future of Treated Pine Shakes.

The Future:

How can we regain consumer confidence, in pine shakes?

- By our two industries working together.
- By quoting studies and providing data to consumers so they can make educated decisions rather than emotional ones.
- We must adopt a uniform standard that recognizes pine shakes in the CSA 080 standard which also stipulates how the testing is to be done.
- This standard must be monitored by an independent 3rd party inspection
- A product warranty must be put in place and backed by the Chemical Manufacturers and the Treaters.
- Consumers also need more education on the effects of CCA on their health and on the environment.
- Someone from the Canadian Wood Preserving Association should be put on the CSA 118.3 committee.

- We must educate the public that the fungus is a growing problem
- There are many studies available that show CCA Treated pine demonstrates very good durability. We should make industry and the public aware of as many of these studies as possible.
- If there are any solutions to the existing untreated pine shake problem, advise industry and the public of these solutions.

Various data and my personal experience show that algae, moss and fungus are on the increase. In the last twenty years they have become hardier and thus are migrating to less humid environments. In areas where they have traditionally been found they are: showing up earlier, more severe, and more widespread.

I saw a program on the learning channel that showed the coral reefs in the Caribbean are being killed by fungus. Scientists did a DNA test on the fungus and traced it to new farm land, in Africa. The fungus had been carried by dust in the Trade Winds and fallen out in the Caribbean Sea.

I have also seen more black staining on cedar shakes than I have ever seen before.

I believe the problem is on the increase.

Is this why pine shakes lasted 50 years, in the past but not today?

With every problem comes a solution.

We have solved the technical problem by pressure treating the pine shakes. But we still have a long way to go to educate the consumer and regain their confidence.