### INFORMATION FOR BUCK CREEK CONDOMINIUM ASSOCIATION OWNERS REGARDING SAFETY RISKS OF UNTESTED AFTERMARKET FIREPLACE DOORS

#### Provided by Owner Julie A. Mackay Percy, Unit A202 July 3, 2021 Annual Owners' Meeting

#### **BACKGROUND, STATUS, AND POSSIBLE SOLUTION UNDERWAY**

Beginning in 2007, Buck Creek Condominium Association has had three condominiums in which the owners have had installed replacement fireplace doors, known in the industry as "aftermarket doors." Each time these doors are installed, they present a substantial fire safety risk to our entire complex, as detailed below. Preway, Inc., long a major manufacturer of fireplaces and other home appliances, manufactured the fireplaces which were installed in all Buck Creek condominiums when it was built from 1979 to 1982. Unfortunately, Preway, Inc. has not been in business since the mid-80s. Because it is no longer in business, Preway no longer can manufacture replacement doors or any other replacement parts for its fireplaces or other products, and UL tests cannot be done because there is no original firebox for Underwriters Labs to use for the very stringent tests.

All fireplaces installed in the U.S. must be tested, approved, and certified by Underwriters Laboratories under the UL-127 testing requirements, which all of the original Preway fireplaces were. Similarly, all replacement/aftermarket equipment manufactured and installed by ANY companies on the Preway fireplaces (or any company's fireplaces, whether Preway or not), must also be tested under UL-127 and, if the tests are not completed, the aftermarket doors or other replacement parts are in a condition in which they cannot be considered to be safe. It is well-established that aftermarket fireplace doors which have not been UL-tested to be used with the original fireplace can pose a substantial risk of altering the way the air circulates in the fireplace, which can cause the fire to burn too hot and to ignite an unexpected fire which can destroy the condominium, the building, and, sometimes, the entire complex. Pictures from such an untested aftermarket door-caused destructive fire are provided below. These conditions and resulting fires can develop whether the fires are burned with the aftermarket doors open or closed.

From 2007 to 2009, the owners of two condominiums refused to remove their new aftermarket replacement fireplace doors, despite the strong request of the Buck Creek Board of Directors and the strong advice of the Fire Marshal for the Eagle River Fire Protection District. They provided written information from the installer and/or the manufacturer stating that the doors were safe, but not stating that the doors had received the necessary UL-127 tests, which they had not, and which they could not, because Preway, Inc. was no longer in business, so there were no original fireplaces available to use for the tests in laboratory conditions. Unable to obtain the cooperation of the owners, the Buck Creek Board advised all owners about the dangerous situation at the 2009 Annual Owners Meeting, and many owners were very concerned about the risks existing from the two condos with the untested aftermarket doors. Eventually, the owners agreed to remove the untested and, therefore potentially dangerous, aftermarket doors, and now use instead the existing screen built into the original fireplace and a fire-resistant mat on the floor below the hearth, as recommended the Eagle River FPD. In 2010, the Board

of Directors enacted an amendment to Buck Creek Rule 14, providing that, due to the fact that there have been no aftermarket doors manufactured which have passed the required safety tests, no Owners may install any replacement doors on their fireplaces at Buck Creek.

As everyone knows, each year the Association retains chimney sweep and qualified fireplace and chimney inspector, Karl Bierbaum of Chim Chimenee Chimney Service Ltd. / Summit Stove & Fireplace Ltd., to clean all dirty chimneys and to inspect and report to the Association all fireplace systems which are damaged or have a dangerous or potentially dangerous condition. One of the dangerous fireplace conditions which he reports is when a fireplace has had its original doors replaced with aftermarket doors. Because no aftermarket doors have been tested to be safe to use with the original Preway fireplaces, Karl always reports the existence of any aftermarket doors, which he did again in May 2020 and, presumably, again this past May. The Association sent a certified letter to the owner of this condominium, but the owner did not agree to remove the doors and hired an attorney to represent him in connection with this ongoing matter.

The prior Board had hoped that possibly the Town of Avon or the Eagle River Protection District might help our Association communicate to the condominium owner the safety concerns and importance of removing the potentially dangerous doors. The Eagle Rive FPD referred me to the Town of Avon, and Derek Place, Building Official with the Town of Avon, met with me and my husband, Mike, twice before the pandemic set in. Derek advised that, if I could find an expert who could tell him from a scientific and engineering standpoint how destructive fires could start from the use of an original fireplace with untested aftermarket doors, that he would be able to work through the Town to have a regulation enacted requiring UL-127 testing of each "new apparatus" created by the installation of aftermarket doors on an existing installed fireplace, because it presented a potential health and safety risk. If the new apparatus had not had the required test, (which the Preway fireplace could not have, since the company is no longer in operation), it would then be in violation of the Avon Building Department regulations.

It took me many months to contact people during the pandemic lockdowns, but, slowly, I was able to talk or email with a number of fireplace experts, fire causation experts, fire departments, fire marshals, disaster expert witness companies, the Consumer Products Safety Commission, the National Association of Fire Prevention, a top engineer at Underwriters Laboratories, and many others. I obtained a great deal of helpful information, but it was difficult to find an available expert. I located one expert in the Colorado mountains who was prepared to meet with Derek Place and provide the necessary information, but the Board could not reach a consensus as to whether or not to retain this expert.

I was very worried that our Complex would be at ongoing risk for potentially destructive, and possibly fatal, fires, so I asked Derek whether he would accept expert information not provided by our Association, but provided by me, as an individual concerned homeowner in Avon. Derek said that that would be perfectly acceptable. In the interim, during which the Board deliberated, our proposed expert had to delay his availability indefinitely due to staffing shortages, so I restarted my search for an expert for me to retain myself, as a concerned homeowner who is willing to help the Association with this potentially dangerous problem, if possible.

Many of the people with whom I talked, while regretting that they could not help, due to conflicts of interest, staff shortages, and other matters, recommended that I talk to another person. One such person is Mr. Charles Gibbons, Jr., Professional Engineer, the gentleman whom I have personally retained to provide all necessary information to Derek and to me. Chuck Gibbons, Derek, my husband, Mike, and I met at the Town of Avon yesterday, Chuck provided invaluable information to supplement what he had provided for the past several weeks via email, and he and Derek have developed a possible solution, which is discussed in more detail below.

Following are many of the details provided by Chuck Gibbons, including information about a totally disastrous fire caused by untested aftermarket fireplace doors in Stowe, Vermont, which destroyed an entire 36-unit condominium building on President's Day weekend several years ago. Also below are my concerns about the fact that Buck Creek has no complex-wide fire alarm system, no way to warn people in each condominium, and no way to automatically call the Fire Department.

## INFORMATION REGARDING NON-UL-TESTED AFTERMARKET DOORS AND PREWAY FIREPLACE MODEL INSTALLED AT BUCK CREEK CONDOMINIUMS

The following information was provided to me via several emails by expert Charles H. Gibbons, Jr., ("Chuck") Professional Engineer, Fireplace Inspector, Fire Causation Investigator, and former UL Fireplace Testing Engineer. Chuck is currently the President of Lampert, Lee & Associates, Engineering, Surveying, Fire Protection and Industrial Consultants, and is the Former Vice President and Director of Engineering for Preway, Inc., where he was responsible for, inter alia, the testing and safety certification of fireplaces. Prior to that, Chuck was the Underwriters Laboratories, Inc. Fire Protection and Engineering Department Group Leader, responsible, inter alia, for the testing, evaluation, and certification of fireplaces.

Chuck summarizes his experience and resume' (which is at the end of this information sheet) as follows:

I spent 10 years working for Underwriters Laboratories. Much of that time was related to work on factory-built fireplaces, including the testing of Preway fireplaces. I then spent 8 years working for Preway, Inc. as their chief design and test engineer and Vice President of Engineering. Since then, I have spent nearly 34 years investigating the origin and cause of fires and explosions related to fireplaces. I have nearly 50 years of experience with factory-built fireplaces and have been qualified as a court expert on the subject across the country.

## Safety and Danger Information regarding the Use of Non-UL-Tested Aftermarket Doors on Wood-Burning Fireplaces, Including the Preway Fireplaces in Use at Buck Creek, and How Fires Can Start from the Use of These Doors

The Preway Model BI42D-EM fireplace (which is installed in the Buck Creek condominiums) is an air-cooled heat circulation fireplace, meaning that room air is drawn into the fireplace through the lower

louver slots, circulates around the firebox where the air is warmed, and then the warm air is exhausted from the fireplace through the louver slots above the glass doors.

The air circulating feature is a key element in keeping the outside of the fireplace cool and preventing overheating of the fireplace and causing a fire.

The EM fireplaces may also be equipped with an optional air circulating electric blower located in the lower compartment behind the lower louver.

The <u>glass doors originally installed</u> on the BI fireplace were manufactured for the fireplace by Preway and were tested and listed by Underwriters Laboratories (UL). These doors were manufactured with specific materials and design with specific clearances and air flow requirements.

The Preway UL-tested and listed fireplaces are intended for installation and use only with Preway manufactured parts or identical parts specifically designed and tested for use with the Preway fireplace.

You will note that the Preway glass doors are mounted within the framed opening of the fireplace and do not cover the air slots in the face of the fireplace. This is also a key feature of the Preway glass doors, as any blockage or restricting of the slot opening, or the other louver opening of the fireplace, can cause a fire hazard. This warning about blockages is stated on the Preway Model nameplate and in the Factory Instructions. This is absolutely critical for the safe operation of the fireplace, whether the doors are open or closed.

Any aftermarket door assembly, even if they have louver or grill openings at the top and bottom of the assembly, can restrict the airflow into and out of the Preway fireplace and cause a fire hazard, and this condition has been the cause of fires. Additionally, in that these aftermarket glass door assemblies usually cover the full front of the fireplace there is likely a space or gap between the original front face of the fireplace and the aftermarket door assembly where ashes, embers or burning matter can collect and also cause a fire. This can occur with the doors open or closed.

[Additional Buck Creek Note: In each case of a Buck Creek owner installing new aftermarket fireplace doors, there was absolutely no Underwriters Laboratories testing done of the new doors on the Preway fireplace model which is in use at Buck Creek.]

## Information and Pictures Regarding a Stowe, Vermont Fire Caused by Burning a Fire in a Fireplace with Untested Aftermarket Doors, Which Destroyed a 36-Unit Condominium Building

For those who believe that aftermarket glass doors cannot cause a fire or creates little risk, Chuck refers us to the following photos of a fire that he investigated a few years ago.

These pictures are from a fire at a 36-unit, 3-story condo building located at the Stowe Mountain ski area in Vermont, which destroyed the building.

The fire occurred in the middle of the night on a 3-day holiday weekend with all of the units occupied. Thankfully, all of the occupants got out with only a few smoke injuries. It could have been a disaster if not for someone coming back from a late-night party pounding on doors to get people out.







### Information about Possible Defendants in Lawsuits Resulting from the Use of Untested Aftermarket Fireplace Doors

Chuck Gibbons also provided information as a non-lawyer describing which parties probably or possibly might be sued in connection with a destructive fire caused by allowing untested and potentially unsafe aftermarket fireplace doors to remain in a condominium with the knowledge of the Board and the management agent.

While he is not an attorney and is not offering legal advice, Chuck provided the following lay person insight, based on nearly 40 years of investigating fireplace fires, many of which have resulted in lawsuits, and serving as an expert witness as to causation and similar matters in many court proceedings:

Persons and entities who are likely to be involved in lawsuits following a fire caused by untested aftermarket doors are the following:

1. The condominium owner who suffered a fire loss; their insurance company will investigate the loss to determine the origin and cause of the fire and will try to sue to recover the loss suffered by the owner and the insurance company.

- 2. If only property has been lost or damaged and, fortunately, no person has been injured or killed, the insurance company will file a lawsuit (subrogation claim) against all parties from which it feels it might be able to collect money. This does not mean that all of the parties are at fault. It is commonly referred to as the "shotgun approach."
- 3. In the case of fires related to individual fireplaces, which would be the case if a fire resulted from the use of untested aftermarket fireplace doors, lawsuits are usually filed against the fireplace manufacturer, the fireplace installer, the builder, and the chimney sweep or fireplace servicing company.
- 4. Further, when the fire occurs in a condominium in a condominium complex, the following parties are also likely to be sued: the condominium association, other condominium owners, the association management company and/or person, the directors of the condominium association, and any other possibly involved individuals.
- 5. If personal injury or death is a result of the fire, then every person or entity who might be held responsible will be sued by all parties with claims.

Specifically, Chuck provided the following example of how persons and entities could or could not become a party to a lawsuit involving the installation of an untested glass door assembly on a factory-built fireplace in a condo unit where it is claimed that the installation and use of the glass doors caused the fire.

- A. <u>The builder is not involved in the suit if the condominium was built decades earlier</u> and if the builder is out of business.
- B. The fireplace manufacturer is not involved in the suit, even if it is still in business, because the nameplate and instruction manual state that only that manufacturer's glass doors shall be used and that the louver openings shall not be blocked. The publication of these instructions and warnings will absolve the manufacturer of the original fireplace because it clearly instructed that only tested and approved Preway aftermarket fireplace doors be used.
- C. The manufacturer of the untested aftermarket fireplace doors will be sued, because they did not warn against using their doors on factory-built fireplaces and that such installation could be a fire hazard.
- D. The installer of the glass doors will be sued, because they knew, or should have known, that the non-UL-tested aftermarket fireplace glass doors that they installed could create a fire hazard.
- E. A chimney sweep who cleaned the fireplace and chimney would be sued because he knew or should have known that the installation of the glass doors blocked the air openings of the fireplace or otherwise made fires in the fireplace dangerous, unless he reported the possible

fire hazard to the condominium property management company and/or the condominium association.

- F. The property management company and the condominium association would be sued, especially if they were informed by the chimney sweep that aftermarket glass doors had been installed on the original fireplace and that these doors could be a fire hazard, and then these entities did not take the necessary actions to ensure that the hazard was eliminated, which, in this case, would require the removal of the aftermarket doors.
- G. The individual members of the board of directors of the condominium association would be sued if the chimney sweep, management company, or other association representative made them were aware of the existence of the fire hazard and they took no action to eliminate the hazard.
- H. **The condominium owner would be sued,** particularly if he was made aware of the fire hazard that existed from his having the glass doors installed on the fireplace in his unit and took no action to eliminate the hazard by removing the doors.

### Specific Information and Recommendations About the Preway Built-In Fireplaces In Use at Buck Creek Condominiums, Avon, Colorado

Chuck provided detailed information about the Preway fireplaces which were installed at Buck Creek in the early '80s. He also advised me that one of the characters I had included in the Model information I provided to him and to the Town of Avon was incorrect, and that the correct model is **Preway Model BI42D-EM** fireplace (not BI42<u>0</u>, as I thought).

The BI42 series fireplaces were built in Wisconsin Rapids, WI from about 1975 through 1983 or 1984 and consist of about 5 series, with the "D" indicating the 4<sup>th</sup> in the series. The "BI" identified the unit as a built-in fireplace. The "42" identified the front opening width of the fireplace. The "EM" indicates that it was part of the Energy Miser configuration of fireplaces. In this configuration the glass doors and outside combustion air kit were part of the basic fireplace and not sold as optional features. The fireplaces in the EM configuration also had cold weather insulation.

All of the BI42D fireplaces are low profile (flat top) and use a triple wall air cooled metal chimney system.

FYI, the model information on our Buck Creek fireplaces is the following, as shown on the photo of the nameplate below:

**UL- Rated Fireplace** 

F - 982083

**BI42D - EM** 

#### PREWAY ZERO CLEARANCE BUILT-IN FIREPLACE

Manufactured in the U.S. by Preway, Inc., Wisconsin Rapids, Wisconsin



Chuck recommends that the Buck Creek Condominium Association continue to contract for yearly inspection and cleaning of the fireplaces and chimneys, which our inspection expert, Karl Bierbaum, does for us. Chuck also recommends that those inspections include video inspections of the chimneys, which is not currently done.

Chuck also recommends that both the association and the owners with fireplace problems receive copies of the sweep/inspector's report. In 2018, the Board created, and requires the use by the management agent of, a standardized certified mail notification system to officially advise every owner whose fireplace is found to have a problem or dangerous/unsafe condition.

## ONGOING RESEARCH WORK BY CHUCK GIBBONS AND EVENTUAL UPDATES WITH DEREK PLACE OF THE TOWN OF AVON FOR POSSIBLE SAFE AND WORKABLE SOLUTIONS

During our meeting on July 1, 2021, Chuck told us that some manufacturers bought some of the Preway fireplace designs when Preway, a major appliance manufacturer, including for companies like Sears, had to go out of business due to complications from a company they had acquired. Chuck asked for precise measurements of our Buck Creek fireplaces to supplement the information, pictures, and Installation Manual I had sent him earlier. Mike took the measurements, and I sent them to Chuck. Chuck will now conduct inquiries among manufacturers in order to determine whether there are any aftermarket fireplace doors presently being manufactured which will be safe to use with our Preway

**fireplaces, even if they have not been UL-tested.** This is not any determination which could be made by a manufacturer who does not have the designs, but Chuck will be able to find out.

If, hopefully, there are in existence one or more models of currently manufactured aftermarket fireplace doors for our Preway fireplaces, which Chuck is able to verify meets all of the critical measurements and design specifications to be safely used on the Buck Creek fireplaces, then several steps would have to be routinely followed by our Association, in order to protect our Complex and owners:

Step One: The Association would have to enact and enforce a Rule which will permit Buck Creek owners to replace their original fireplace doors with only this/these specific model(s) of approved and safe aftermarket fireplace doors.

Step Two: Following the enactment of this Rule, the Association would need also to advise its annual inspector of the approved replacement door models and what specifications Chuck has recommended can only be used, and Karl, or his successor, would have to determine whether new aftermarket doors meet the permitted model and specification requirements or not.

Step Three: If the new aftermarket doors do not meet the approved replacement door models and specifications which Chuck has advised could be used, the Association will have to advise the Owner that the doors will have to be removed under the Rules.

Step Four: If the Owner still refuses to remove the disallowed aftermarket fireplace doors, the Association will be able to, and should, contact Derek Place in the Avon Building Department. At that point, Derek will know that the installed doors create a safety hazard because of the well-established risk of fires started in untested aftermarket doors, and he will be able to involve the Eagle River Fire Protection District, which will be able to take action against the Owner who refuses to remove the doors.

# ADDITIONAL AREA OF CONCERN TO BE ADDRESSED BY ASSOCIATION OWNERS OR BOARD – BUCK CREEK'S LACK OF IN-UNIT WIRELESS ALARM CONNECTED TO A CENTRAL COMPLEX ALARM WITH A RESIDENT WARNING SIREN AND AUTOMATIC CALL TO FIRE DEPARTMENT

During my extensive research into the substantial risk of dangerous, and possibly life-threatening, fires caused by untested aftermarket doors and by any other possible cause of fires, I began to look into whether it was feasible for Buck Creek to have installed a wireless fire alarm system which would:

- 1. Immediately signal the entire alarm system in the event of a fire in a condominium or the parking structure;
- 2. Immediately sound a siren loud enough to wake up all residents at Buck Creek so that they can evacuate; and

3. Immediately send a signal to the Fire Department through the central alarm system.

Chuck has advised that there are some good wireless alarm systems available, so that each unit would not have to be connected by wires. Our family properties have long been protected by Stanley Convergent Security Systems, and I have made inquiries into whether such a system would be possible at Buck Creek and what it would cost. If the owners or Board would like me to pursue this possibility, I will ask about setting up a meeting so that they can develop a plan and a proposal.

Please let me know if you have any questions or would like any additional information.

Thank you,

Julie

Julie Mackay Percy Buck Creek Condominiums A202 520 W. Beaver Creek Boulevard Avon, CO 81620 303-478-8051



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email lampert@wctc.net

#### CHARLES H. GIBBONS, JR., P.E.

#### Career Experience:

1987-Present Lampert, Lee & Associates, Wisconsin Rapids, WI

President

Vice-President (1987-1995)

Engineering, Surveying, Fire Protection and Industrial Consultants

Consulting in the areas of construction and project management, fire, explosion and safety analysis and investigations, environmental assessments and investigations, facilities design, manufacturing and planning, equipment design and product liability.

1980-1987

Preway, Inc., Wisconsin Rapids, Wisconsin

Vice-President - Director of Engineering

Manufacture of gas, oil, electric and solid fuel cooking and heating appliances and venting systems including: furnaces and heaters, fireplaces and stoves, gas barbecue grills,

ranges, chimneys and gas vents.

Responsible for research and development, product safety, quality standards, product testing and certification, state, federal and industry regulations and standards, facilities planning, environmental compliance.

1970-1980

Underwriters Laboratories, Inc., Northbrook, IL

Engineering Group Leader, Fire Protection & Engineering Department

Worldwide Product Testing and Certification Laboratory

Responsible for testing, evaluation and certification of various products and designs including: chimneys & venting systems, fireplaces, heating appliances, fire extinguishers, fire sprinkler systems, fire doors, building materials, structural building components, building code compliance, consumer and industrial products, facilities planning and construction.

1965-1970

Edwin Hancock Engineering Co., Westchester, IL

Assistant Construction Engineer

Responsible for design, layout, inspection and construction of various building and municipal construction projects.

#### CHARLES H. GIBBONS, JR., P.E. (continued)

Registrations:

Licensed/Registered Professional Engineer in the States of Wisconsin, Illinois, Indiana,

Minnesota, New York, Washington, Florida, and Massachusetts.

Certified in building inspection in State of Maryland and Fire Protection Engineering and

Safety in the State of Massachusetts.

Education:

Bachelor of Science in Engineering

Valparaiso University, Valparaiso, Indiana

Continuing education courses and seminars in product liability and safety, product

warnings, safe product design and computer applications.

#### Professional Affiliations and Recognitions (past and present):

Who's Who in Mechanical Engineering and Materials Science

National Society of Professional Engineers (NSPE)

Wisconsin Society of Professional Engineers (WSPE)

National Fire Protection Association (NFPA)

Wood Heating Alliance (WHA)

Fireplace Institute

American National Standards Institute (ANSI)

Underwriters Laboratories Industrial Advisory Council on Chimneys, Fireplaces & Vents NFPA 211 Standards Committee on Chimneys, Fireplaces and Venting Systems NFPA 96 Standards Committee on Venting Control and Fire Protection of Commercial

**Cooking Operations** 

ANSI Standards Committee on Gas Fired Room Heaters, Wall Furnaces and Decorative

Appliances

Gas Appliance Manufacturer's Association Committee on Direct Heating Appliances

WHA Technical Committee on Fireplaces (Chairman - 1983 to 1985)

WHA Technical Committee on Chimneys

WHA/CPSC Committee on Chimney Safety

American Society of Heating, Refrigeration & Air Conditioning Engineers (ASHRAE)

American Society of Civil Engineers (ASCE)

Society of Manufacturing Engineers

ASHRAE Standards Committee P106 on Fireplaces

Canadian Standards Association (CSA) Committees on Installation of Gas and Solid Fuel

Appliances and Venting Systems

Canadian Gas Association (CGA) Committee on Gas Fireplaces and Room Heaters Underwriters Laboratories of Canada (ULC) Committees on Chimneys, Fireplaces and

Venting Systems

American Water Works Association (AWWA) Standards Committees on Thermoplastic and Reinforced Fiberglass Pipe

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