

Date 5
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HB 643

Amendments to House Bill No. 643
2nd Reading Copy

Requested by Representative Joe McKenney

For the House Committee of the Whole

Prepared by David Niss
March 21, 2005 (1:42pm)

1. Page 7, line 25.
Strike: "AND"

2. Page 8, line 3.
Following: "1996A"
Insert: "; and
(g) a bar in which an air exchanger meeting the requirements of subsection (6) is in use"

3. Page 8.
Following: line 3
Insert: "(6) To meet the requirements of subsection (5)(g), the following must be complied with:
(a) The air exchanger must be manufactured, installed, and used according to the guidelines of the American society of heating, refrigerating and air-conditioning engineers.
(b) The exchanger must remove substantially all tobacco smoke from the bar when the exchanger is being used.
(c) The exchanger must be serviced at least annually in a manner ensuring its operation in accordance with this subsection (6).
(d) The exchanger must be in continuous operation at any time there is anyone in the bar, including an employee.
(e) The bar must have posted in a conspicuous place an affidavit demonstrating installation and an affidavit demonstrating servicing in compliance with the requirements of this subsection (6)."

- END -



everson·cordeiro engineering design, inc.
mechanical·electrical engineers

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March 17, 2005

Mr. Joe McKinney
Proprietor of Legends Bar and Casino
Great Falls, MT

This is concerning **Filtration in Smoke Control for Bars and Casinos.**

Joe,

This letter is a follow up to our telephone conversation concerning the continuing problem of smoke control in bars and casinos.

As you are aware, Everson Cordeiro Engineering does extensive design in bars and casino smoke control through out the State of Montana for [REDACTED]

We have designed upwards of 60 -70 heat recovery and ventilation systems for smoke control and environmental air quality standards for bars and casinos through out the State of Montana in their public facilities.

The approach that we have adopted is to follow the manual written by [REDACTED] Engineering Inc. in Butte, Montana for smoke control and environmental air quality standards for bars, casinos, and lounges.

The system employed is an air replacement system, not an air filtration system. An air filtration system would be a component such as a smoke eater or a bioclimatic air filtration system which treats the air inside the building and recirculates the conditioned air back into the space.

These systems tend to work well when they are new but when they get some age on them they do not seem to perform as well as would be expected for air purification and air quality standards. Also, maintenance is a big factor in air filtration systems, if proper preventative maintenance and continuous maintenance is not performed, the systems fall short of their design standards for air purification and air quality control.

The system we utilize is a cross plated heat exchanger system which isolates the contaminated air from the incoming outdoor ventilation air. The system operates on the principal of exhausting the smoke laden air from the immediate source of the smoke generation and introducing clean air into the building from outside into the room for positive displacement of the foul air from the contaminated area to an exhaust outlet.

For example, in the casino, we would introduce the air in a room as far away from the machines as possible and exhausting the smoke laden air over and behind the casino gambling machine to remove the smoke from the occupied space and from the occupied breathing zone of the casino machine player.

This system also complies with energy conservation standards in that the heat recovery unit absorbs or takes out the heat from the exhaust air being rejected outside the building and uses it to preheat or to temper the incoming air into the space to reduce heat loss or heat gain in either the heating or cooling application, thereby reducing the overall energy requirement to condition the air for door air quality standards.

This system is exceptionally maintenance free in that there are no moving parts and there are no filters or components which would require replacement or cleaning to maintain optimum operation and efficiency for heat transfer in the exhaust to outside air ventilation system.

Our office has been confronted by owners who have had large exhaust systems installed in casinos to remove the smoke and contaminants from the occupied space. The problem with that concept is without air make up into the building you are providing an excess of infiltration of unconditioned air into the building which can create drafts and localized areas of discomfort in the building during extreme winter heating conditions.

I fully stand behind the design parameters using plate type heat exchangers, where ever possible this air displacement system is utilized for air quality standards in public occupied spaces.

If you have any questions concerning this subject, please contact our office.

Sincerely,
Harold Everson
Harold Everson

lcg