CANADIAN INTERNATIONAL TRADE TRIBUNAL
TRIBUNAL CANADIEN DU COMMERCE EXTÉRIEUR

Ottawa, Monday, July 13, 1998

**Appeal Nos. AP-97-083 and AP-97-101**

IN THE MATTER OF appeals heard on January 6, 1998, under section 67 of the *Customs Act*, R.S.C. 1985, c. 1 (2nd Supp.);

AND IN THE MATTER OF decisions of the Deputy Minister of National Revenue dated June 27, August 14 and 26, and September 5, 1997, with respect to a request for re-determination under section 63 of the *Customs Act*.

**BETWEEN**

**NAILOR INDUSTRIES INC.** **Appellant**

**AND**

**THE DEPUTY MINISTER OF NATIONAL REVENUE** **Respondent**

**DECISION OF THE TRIBUNAL**

The appeals are dismissed.

Robert C. Coates, Q.C.
Robert C. Coates, Q.C.
Presiding Member

Raynald Guay
Raynald Guay
Member

Charles A. Gracey
Charles A. Gracey
Member

Michel P. Granger
Michel P. Granger
Secretary

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CANADIAN INTERNATIONAL TRADE TRIBUNAL
TRIBUNAL CANADIEN DU COMMERCE EXTÉRIEUR

**UNOFFICIAL SUMMARY**

**Appeal Nos. AP-97-083 and AP-97-101**

**NAILOR INDUSTRIES INC.** **Appellant**

**and**

**THE DEPUTY MINISTER OF NATIONAL REVENUE** **Respondent**

These are appeals under section 67 of the *Customs Act* from decisions of the Deputy Minister of National Revenue. In a series of shipments, the appellant imported into Canada different models of air diffusers. The issue in these appeals is whether the goods in issue are properly classified under tariff item No. 7308.90.90 as other parts of structures of iron or steel and under tariff item No. 7610.90.00 as other parts of aluminum structures, as determined by the respondent, or should be classified under tariff item No. 8481.80.91 as taps, cocks, valves or similar appliances for pipes, as claimed by the appellant. In the alternative, the appellant contended that the goods in issue should be classified in heading No. 84.79 as machines and mechanical appliances having individual functions, not specified or included elsewhere in Chapter 84.

**HELD:** The appeals are dismissed. The Tribunal is not persuaded that the goods in issue effect sufficient control over the air passing through them to qualify as valves or similar appliances. The Tribunal is also not persuaded that the goods in issue are mechanical appliances having individual functions. The Tribunal came to that conclusion on the basis of its view that the goods in issue do not perform "work" in any generally recognized sense. Moreover, they do not operate through a combination of moving parts and, therefore, lack any basic mechanical aspect.

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|---|---|
| Place of Hearing: | Ottawa, Ontario |
| Date of Hearing: | January 6, 1998 |
| Date of Decision: | July 13, 1998 |
| Tribunal Members: | Robert C. Coates, Q.C., Presiding Member<br>Raynald Guay, Member<br>Charles A. Gracey, Member |
| Counsel for the Tribunal: | John L. Syme |
| Clerk of the Tribunal: | Margaret Fisher |
| Appearances: | Douglas J. Bowering, for the appellant<br>Jocelyn Sigouin, for the respondent |

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CANADIAN INTERNATIONAL TRADE TRIBUNAL
TRIBUNAL CANADIEN DU COMMERCE EXTÉRIEUR

**Appeal Nos. AP-97-083 and AP-97-101**

**NAILOR INDUSTRIES INC.** **Appellant**

**and**

**THE DEPUTY MINISTER OF NATIONAL REVENUE** **Respondent**

TRIBUNAL: ROBERT C. COATES, Q.C., Presiding Member
RAYNALD GUAY, Member
CHARLES A. GRACEY, Member

## REASONS FOR DECISION

These are appeals under section 67 of the *Customs Act*[1] (the Act) from decisions of the Deputy Minister of National Revenue made under subsection 63(3) of the Act.

The issue in these appeals is whether different models of air diffusers, imported by the appellant in a series of shipments, are properly classified under tariff item No. 7308.90.90 of Schedule I to the *Customs Tariff*[2] as other parts of structures of iron or steel and under tariff item No. 7610.90.00 as other parts of aluminum structures, as determined by the respondent, or should be classified under tariff item No. 8481.80.91 as taps, cocks, valves or similar appliances for pipes, as claimed by the appellant. In the alternative, the appellant contended that the goods in issue should be classified in heading No. 84.79 as machines and mechanical appliances having individual functions, not specified or included elsewhere in Chapter 84.

The following is the relevant tariff nomenclature from Schedule I to the *Customs Tariff*:

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|---|---|
| 73.08 | Structures (excluding prefabricated buildings of heading No. 94.06) and parts of structures (for example, bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel. |
| 7308.90 | -Other |
| 7308.90.90 | ---Other |
| 76.10 | Aluminum structures (excluding prefabricated buildings of heading No. 94.06) and parts of structures (for example, bridges and bridge-sections, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and thresholds for doors, balustrades, pillars and columns); aluminum plates, rods, profiles, tubes and the like, prepared for use in structures. |
| 7610.90.00 | -Other |

1. R.S.C. 1985, c. 1 (2nd Supp.).
2. R.S.C. 1985, c. 41 (3rd Supp.).

| | |
|---|---|
| 84.79 | Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter. |
| 84.81 | Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves. |
| 8481.80 | -Other appliances |
| | ---Other: |
| 8481.80.91 | ----Hand operated or hand activated (excluding multiple gear, pulley or chain valves, connective couplings equipped with valves) |

The appellant's representative called Dr. Peter R. Frise, professor of mechanical engineering at the University of Windsor, as an expert witness. The Tribunal accepted him as an expert with respect to the mechanical aspects of the goods in issue. Dr. Frise testified that the goods in issue are installed at the end of air conditioning, heating or ventilating ducts in commercial buildings and that air is directed through the ducts and exits into rooms through the goods in issue. Dr. Frise testified that the goods in issue are used to control the rate and direction of air flow into a room. He also stated that pressure changes brought about by the goods in issue would be "very small."

Dr. Frise was asked if the goods in issue perform "work." He defined "work" as a force moving through a distance. Dr. Frise testified that, in terms of fluid mechanics, work is defined as a pressure differential and/or a velocity change. Thus, he testified that, by altering the direction and velocity of the air passing through the goods in issue, work was being done on the air. In Dr. Frise's view, as long as there is a pressure differential and/or a velocity change, then work is being done on the air.

Dr. Frise testified that a valve is any device that controls the flow of fluids.[3] He stated that valves can control the rate, volume, pressure or direction of the flow. He stated that some valves are open most of the time, while other valves are closed most of the time. He stated that some valves never close completely and gave as an example the throttle valve in a carburettor. Dr. Frise also described a "selector valve," which is a device that directs the flow of fluids through one of two or more possible outlets. Its function is not to stop the flow of fluids, but simply to direct it.

On cross-examination, Dr. Frise acknowledged that, though the goods in issue are adjustable, they are usually adjusted or set at the time of installation. Dr. Frise agreed that any fitting within a heat, ventilation and air conditioning (HVAC) system would cause a pressure drop within the system. He agreed, for example, that an elbow fitting would have that effect. He also agreed that the goods in issue do not incorporate dampers and that his testimony related to round diffusers and rectangular grills alone. Dr. Frise was asked whether air flow could be controlled with the goods in issue. He responded that the rate of air flow is a function of the pressure drop across the diffuser. In his words, "[i]f you make it harder for the air to get through the diffuser or through any part of the system, then less air will flow through that part of the system.[4]"

Counsel for the respondent called Mr. Andrzej Bogdanowicz as its expert witness. Mr. Bogdanowicz, who has a Master of Science degree in mechanical engineering, is employed by a firm of consulting engineers which specializes in, among other things, the design and implementation of HVAC systems. Mr. Bogdanowicz was accepted as an expert with respect to HVAC systems.

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3. A fluid can be a liquid, a gas or a slurry.
4. *Transcript of Public Hearing*, January 6, 1998, at 30.

Mr. Bogdanowicz testified that a valve is a device that controls the flow rate of fluids. He said that, in his opinion, the goods in issue are designed to direct the flow of air within a room and not to control the rate of air flow. He testified that the control of the rate of air flow within an HVAC system would be effected not by adjusting the goods in issue but rather by using dampers which would typically be installed further upstream in an HVAC system. He also stated that the vanes, which form part of the goods in issue, cannot be closed to stop the air flow and that the ability to close in that manner is a characteristic of valves. He stated that, even if the vanes on the goods in issue were closed as much as their design allows, there would be minimal effect upon the rate of air flow. Mr. Bogdanowicz explained that the basic purpose of the goods in issue is to eliminate drafts by diffusing the flow of air into a room.

Mr. Bogdanowicz was asked to describe the common element of "taps," "cocks" and "valves." He stated that it was the ability to stop the flow of fluids. Mr. Bogdanowicz was also asked to define a "mechanical appliance." In his words, a mechanical appliance would be a device that includes a combination of moving parts, which, through motion and some movements and transmission of power, generate an effect of energy change. Mr. Bogdanowicz stated that neither the duct work nor the diffusers in an HVAC system are mechanical appliances, but a fan, which has moving parts and propels air through an HVAC system, clearly is a mechanical appliance.

On cross-examination, Mr. Bogdanowicz agreed that some valves, including diverter valves, are designed to divert a flow from one outlet to another and would not necessarily stop the flow. He explained that the difference between the goods in issue and diverter valves is that, with the latter, one distinct port or outlet would be completely closed, while the other would be completely open. Mr. Bogdanowicz also agreed that the goods in issue do some work. However, he noted, by the same standard, any fitting, including an elbow and, indeed, a duct itself, could be considered to do some work on air passing through it.

In argument, the appellant's representative pointed out that heading No. 84.81 refers to taps, cocks, valves and similar appliances. He argued that the goods in issue need not be valves to fall within the heading, provided they are similar to valves in operation. In the representative's submission, the evidence supports that conclusion. The representative also pointed out that the *Explanatory Notes to the Harmonized Commodity Description and Coding System*[5] (the Explanatory Notes) to heading No. 84.81 provide that the heading includes "such devices designed to regulate the pressure or the flow velocity of a liquid or a gas" and that "[t]aps, cocks, valves, etc., remain in this heading even if specialized for use on a particular machine or apparatus."

The appellant's representative argued that, in the alternative, the goods in issue should be classified in heading No. 84.79 as mechanical appliances having individual functions. In support of that argument, the representative noted that the goods in issue have moving and stationary parts and that they have the essential character of being independent devices that control the directional flow of air movement.

Counsel for the respondent argued that the goods in issue did not meet the definition of a valve inasmuch as they could not be completely closed. Counsel also relied on the definition of a valve referenced in a text entitled *The Valve Primer*,[6] which states that a valve must satisfy two conditions, first, that the valve cannot be allowed to leak into the environment and, second, that it must not leak internally. Counsel argued that the goods in issue were not intended to stop or regulate the flow of air, nor capable of doing so, but only

5. Customs Co-operation Council, 1st ed., Brussels, 1986.
6. B.T. Stojkov (New York: Industrial Press, 1997).

to diffuse air in order to prevent drafts. Counsel argued that, to obtain flow control, a damper would have to be fitted on the goods in issue.

To support his argument that the air diffusers could not qualify as "similar appliances," within the meaning of heading No. 84.81, counsel for the respondent relied on the *ejusdem generis* rule of construction. Counsel noted that Mr. Bogdanowicz's evidence was that the characteristic common to taps, cocks and valves was that they were all capable of completely closing off flows. Counsel argued that, to be a "similar appliance" in heading No. 84.81, a device would have to possess that capability. As the goods in issue do not, counsel argued that they do not qualify as "similar appliances."

With respect to heading No. 84.79, counsel for the respondent argued that the goods in issue cannot be considered "mechanical appliances," as they do not have any moving parts and they do not perform any "work."

Counsel for the respondent argued that certain of the goods in issue made of steel are properly classified under tariff item No. 7308.90.90 as other parts of structures of iron or steel, or plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel, and that those that are made out of aluminum are properly classified under tariff item No. 7610.90.00 as other parts of aluminum structures or aluminum plates, rods, profiles, tubes and the like, prepared for use in structures.

The Tribunal is not persuaded that the goods in issue should be classified under either of the tariff items suggested by the appellant.

The appellant's first position is that the goods in issue should be classified in heading No. 84.81 as "valves" or "similar appliances." The experts' evidence differed with respect to the attributes which a device must possess in order to qualify as a valve. Dr. Frise expressed the view that a valve is a device which "controls" the flow of fluids, but that it need not necessarily halt the flow completely. Mr. Bogdanowicz opined that, generally, to qualify as a valve, a device would need to be capable of completely stopping the flow of a fluid. However, in cross-examination, he agreed that there could be devices that, without completely halting the flow, would, nevertheless, be valves.

The Tribunal agrees with Mr. Bogdanowicz that, generally, valves have the capability to stop the flow of fluids. However, it is prepared to accept that there may be some devices which do not have that capability and, yet, may still qualify as valves. The characteristic common to both Dr. Frise's and Mr. Bogdanowicz's definitions of a valve is the element of control. In the Tribunal's view, a valve must, at a minimum, be capable of controlling the flow of fluid which passes through it. The Tribunal is of the view that control, in this context, means the ability to limit, check or regulate in some substantial manner. The Tribunal's view is supported by the description of a valve contained in literature put into evidence by the appellant.[7] Under the heading "What is a Valve?", that literature provides as follows:

> By definition, a valve is a device that controls the flow of a fluid. Today's valves can control not only the flow, but the rate, the volume, the pressure or the direction of [fluids] through a pipeline, chute or similar passageway. They can turn on and turn off, regulate, modulate or isolate.

7. Exhibit A-1, excerpt from Valve Manufacturers Association of America Web site at www.vma.org/valve.htm.

The Tribunal's view that valves (as well as taps, cocks and similar appliances) possess the ability to control fluids is further supported by the Explanatory Notes to heading No. 84.81 which provide, in part, as follows:

> This heading covers taps, cocks, valves and similar appliances, used on or in pipes, tanks, vats or the like to regulate the flow (for supply, discharge, etc.), of fluids (liquid, viscous or gaseous), or, in certain cases, of solids (e.g., sand). The heading includes such devices designed to regulate the pressure or the flow velocity of a liquid or a gas.
>
> The appliances regulate the flow by opening or closing an aperture (e.g., gate, disc, ball, plug, needle or diaphragm). They may be operated by hand (by means of a key, wheel, press button, etc.), or by a motor, solenoid, clock movement, etc., or by an automatic device such as a spring, counterweight.

The evidence indicates that the goods in issue diffuse the air flow as it enters a room. While the Tribunal accepts Dr. Frise's testimony that the goods in issue may affect flow rates, it notes that, on direct examination, he said that the pressure changes created by the goods in issue would be "very small." However, on cross-examination, Dr. Frise agreed that the rate of air flow is a function of the pressure drop across the goods in issue. Moreover, Mr. Bogdanowicz testified that the goods in issue are not designed to regulate the flow of air in terms of flow rate, but rather simply to adjust the discharge pattern of that air flow. Mr. Bogdanowicz stated that to balance the air flow between rooms would require the installation of dampers either on the goods in issue or, more likely, further upstream within an HVAC system. Though the goods in issue can be fitted with dampers, they were not so fitted at the time of importation.

In the Tribunal's view, the testimony is clear and undisputed that the goods in issue have minimal effect upon either the volume or the rate of air flow, that the pressure differential across the diffuser is minimal and that the goods in issue are more accurately described as being capable of adjusting air flow rather than stopping it and, as such, of functioning as a valve. Based on all of the foregoing, it is the Tribunal's view that the goods in issue do not have the capability to control the air flow entering a room and are, thus, in no sense "valves."

The Tribunal is also of the view that the goods in issue are not similar appliances within the meaning of heading No. 84.81. It is clear from reading heading No. 84.81 and the Explanatory Notes thereto that similar appliances would have to possess the same general attributes as those of taps, cocks and valves to fall within heading No. 84.81. The Tribunal has already concluded that, to be a tap, cock or valve, a device would have to be able to control the flow of fluids. It has also found that the goods in issue do not possess that capability. Therefore, the goods in issue cannot be considered similar appliances in heading No. 84.81.

The appellant's representative also argued that, in the alternative, the goods in issue should be classified in heading No. 84.79 as mechanical appliances having individual functions. In the Tribunal's view, to be a mechanical appliance, a device must do work through some combination of moving parts. Dr. Frise testified that the goods in issue do work on the air as it passes over the vanes. However, he candidly acknowledged that a simple elbow joint within an HVAC system would similarly do work. The Tribunal is of the view that "work" of this kind is not sufficient to render the goods in issue machines. Moreover, the goods in issue do not do work through a combination of moving parts. It is clear from the evidence that the goods in issue, though adjustable, are set at the time of installation, thereafter remaining static, and perform their function in a passive way. Therefore, they lack a mechanical aspect. In the Tribunal's view, this falls far short of the most basic of machines or mechanical appliances.

The Tribunal is of the view that the goods in issue are properly classified, as determined by the respondent, under tariff item No. 7308.90.90 as other parts of structures of iron or steel, or plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel, and under tariff item No. 7610.90.00 as other parts of aluminum structures or aluminum plates, rods, profiles, tubes and the like, prepared for use in structures. The evidence indicates that the goods in issue are made of steel and aluminum and that they are designed for installation and used within or as parts of structures such as large commercial and industrial buildings.

For the foregoing reasons, the appeals are dismissed.

Robert C. Coates, Q.C.
Robert C. Coates, Q.C.
Presiding Member

Raynald Guay
Raynald Guay
Member

Charles A. Gracey
Charles A. Gracey
Member