

**TENNESSEE DEPARTMENT OF REVENUE  
LETTER RULING # 08-11**

**WARNING**

**Letter rulings are binding on the Department only with respect to the individual taxpayer being addressed in the ruling. This presentation of the ruling in a redacted form is informational only. Rulings are made in response to particular facts presented and are not intended necessarily as statements of Department policy.**

**SUBJECT**

Whether sales of a blood glucose monitoring device are exempt for purposes of Tennessee sales and use taxation pursuant to Tenn. Code Ann. § 67-6-314 (2006).

**SCOPE**

This letter ruling is an interpretation and application of the tax law as it relates to a specific set of existing facts furnished to the Department by the taxpayer. The rulings herein are binding upon the Department, and are applicable only to the individual taxpayer being addressed.

This letter ruling may be revoked or modified by the Commissioner at any time. Such revocation or modification shall be effective retroactively unless the following conditions are met, in which case the revocation shall be prospective only:

- (A) The taxpayer must not have misstated or omitted material facts involved in the transaction;
- (B) Facts that develop later must not be materially different from the facts upon which the ruling was based;
- (C) The applicable law must not have been changed or amended;
- (D) The ruling must have been issued originally with respect to a prospective or proposed transaction; and
- (E) The taxpayer directly involved must have acted in good faith in relying upon the ruling and a retroactive revocation of the ruling must inure to his detriment.

**FACTS**

[TAXPAYER] produces the [GLUCOSE MONITORING SYSTEM], which is used by persons suffering from diabetes. Due to a malfunctioning or destroyed pancreas,<sup>1</sup> a diabetic's body does

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<sup>1</sup> The pancreas is a gland organ in the digestive and endocrine systems of vertebrates. The pancreas produces several important hormones, including insulin, which plays a role in the regulation of blood glucose levels.

not sense when blood sugar levels are high, and does not correspondingly produce insulin to lower blood sugar to normal levels.<sup>2</sup> Additionally, many people with diabetes have diminished sensitivity to the signs and symptoms of dangerously low blood glucose. This is known as hypoglycemia unawareness, and is due to dysfunction of the patient's central and autonomic nervous system. Affected tissues include the glucose-sensitive neurons of the hypothalamus, and both sympathetic and parasympathetic systems. Without normal warning symptoms of dangerously low glucose, these patients are vulnerable to seizures, loss of consciousness, or even death. With respect to high glucose levels, patients typically have no symptoms until glucose values are well above target ranges and are approaching hazardous levels.

According to the Taxpayer's Glucose Monitoring System package insert,<sup>3</sup> the Glucose Monitoring System is a prescription glucose-monitoring device indicated for detecting and tracking trends and patterns in blood glucose levels in adults with diabetes. The Glucose Monitoring System aids in the detection of episodes of both hyperglycemia and hypoglycemia (high and low blood sugar levels), facilitating acute and long-term therapy adjustments. The Glucose Monitoring System is comprised of a number of components, including a sensor probe that is inserted under the patient's abdominal skin to monitor glucose levels in the surrounding tissue fluid. The sensor works through an electrochemical reaction with glucose. An enzyme on the sensor is used to convert glucose into an electronic signal, which is measured by a transmitter and continuously sent to a wireless receiver. The receiver converts the sensor signal into a glucose reading that is displayed to the user. The transmitter adheres to the patient's abdomen, and must be within a certain distance of the receiver for the system to function properly.

The Glucose Monitoring System automatically measures glucose levels every five minutes, even while the user is sleeping. The continuous nature of the glucose values provided by the Glucose Monitoring System allows a patient to set alerts (via vibratory and audible alarms) to warn him or her of dangerously high or low blood glucose levels.

### **QUESTION**

Are sales of the Glucose Monitoring System exempt from the Tennessee sales and use tax under Tenn. Code Ann. § 67-6-314?

### **RULING**

No. Sales of the Glucose Monitoring System are not exempt from the Tennessee sales and use tax.

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<sup>2</sup> Abnormally high blood glucose (hyperglycemia) is one of the primary characteristics of diabetes. Type 1 diabetes is characterized by loss of the insulin-producing beta cells of the pancreas, leading to a deficiency of insulin and hyperglycemia. Type 2 diabetes is generally due to a combination of defective insulin secretion and insulin resistance or reduced insulin sensitivity, both of which lead to hyperglycemia.

<sup>3</sup> Available at [WEBSITE].

## ANALYSIS

Under the Retailers' Sales Tax Act, Tenn. Code Ann. § 67-6-101 *et seq.*, the sale of tangible personal property is generally subject to sales and use tax. Medical devices such as the Glucose Monitoring System come within the definition of "tangible personal property" under Tenn. Code Ann. § 67-6-102, and sales of such devices are accordingly subject to taxation unless specifically exempt.

### 1. Sales of the Glucose Monitoring System occurring before January 1, 2008

Tenn. Code Ann. § 67-6-314(5) (2006) exempts from Tennessee sales and use tax the sale of "prosthetics, orthotics, special molded orthopedic shoes, walkers, crutches, surgical supports of all kinds, and other similarly medical corrective or support appliances and devices." Sales of the Glucose Monitoring System occurring before January 1, 2008,<sup>4</sup> are not exempt from the Tennessee sales and use tax under Tenn. Code Ann. § 67-6-314(5) (2006), because they do not qualify as a prosthetic device.

The Tennessee Code does not define the term "prosthetics" for purposes of Tenn. Code Ann. § 67-6-314(5). However, the Tennessee Supreme Court has held that a device is a "prosthetic" as the term is used in Tenn. Code Ann. § 67-6-314(5) if it substitutes for the missing function of a bodily part, whether the part is missing, non-functioning, or has reduced function. *Cordis Corp. v. Taylor*, 762 S.W.2d 138, 139 (Tenn. 1988). Significantly, the term "prosthetic" includes a device that augments the performance of a natural function, even where no bodily part is missing. *Id.* For example, the court held that a hydrocephalus valve system was a prosthesis because it augmented the performance of a natural function (the flow of cerebral spinal fluid from the brain into the bloodstream) even though the patient was missing no bodily part related to the function. *Id.*

Standing alone, the Glucose Monitoring System acts as a measuring device similar to thermometers and blood pressure monitors that read the body's status. However, unlike thermometers and blood pressure monitors, the Glucose Monitoring System is used exclusively by diabetics to manage blood glucose levels. While the Glucose Monitoring System is used to manage blood glucose levels and is part of the overall regime that substitutes for a properly functioning pancreatic system, alone it does not substitute for or augment the performance of a dysfunctional pancreatic system. While the Glucose Monitoring System provides important information to the patient and physician about episodes of both hyperglycemia and hypoglycemia, it does not help the body perform any function. Instead, the device is used to prescribe the proper treatment for diabetes. Therefore, the Glucose Monitoring System does not fall within the definition of "prosthetics" for Tennessee sales and use tax purposes.

### 2. Sales of the Glucose Monitoring System occurring on or after January 1, 2008

Sales of the Glucose Monitoring System occurring on or after January 1, 2008, are not exempt from the Tennessee sales and use tax pursuant to Tenn. Code Ann. § 67-6-314(1) (2007), which

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<sup>4</sup> Note that Tenn. Code Ann. § 67-6-314 has been amended effective January 1, 2008. Please refer to the next section for details.

provides an exemption for sales of “prosthetic devices for human use.”<sup>5</sup> Therefore, beginning January 1, 2008, sales of the Glucose Monitoring System are subject to Tennessee sales and use taxation.

2007 Tenn. Pub. Acts, Public Chapter 602, Section 68 amended the sales and use tax definitions under Tenn. Code Ann. § 67-6-102 to define the term “prosthetic device” as “a replacement, corrective, or supportive device” that is “worn on or in the body to . . . [p]revent or correct physical deformity or malfunction.” *See* Tenn. Code Ann. § 67-6-102(62)(A)(ii) (2007). The Glucose Monitoring System is not a replacement, corrective, or supportive device because it does not replace, correct, or support the function of the pancreas. Although it is worn on or in the body, the Glucose Monitoring System does not correct the physical malfunction of the body to regulate blood glucose levels. It provides important information to the patient and physician that is used to prescribe the proper treatment for diabetes. Accordingly, the Glucose Monitoring System is not a prosthetic device.

Rather, the Glucose Monitoring System will fall under the definition of “durable medical equipment,” as added by 2007 Tenn. Pub. Acts, Public Chapter 602, Section 68. *See* Tenn. Code Ann. § 67-6-102(29) (2007). Pursuant to Tenn. Code Ann. § 67-6-314(2) (2007), durable medical equipment will be taxable unless it is specifically for home use and dispensed pursuant to a prescription for human use. The Glucose Monitoring System, as described in the facts, is intended to be worn by the diabetes patient continuously, including when the patient is outside the home. As such, the Glucose Monitoring System is not specifically for home use, because it is intended to be used outside the home. Thus, the Glucose Monitoring System does not qualify for the exemption for durable medical equipment for home use.

The sale of the Glucose Monitoring System is therefore subject to Tennessee sales and use taxation.

### CONCLUSION

Sales of the Glucose Monitoring System are not exempt for purposes of Tennessee sales and use taxation pursuant to Tenn. Code Ann. § 67-6-314 (2006).

Kristin Husat  
Senior Tax Counsel

APPROVED: Reagan Farr  
Commissioner of Revenue

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<sup>5</sup> 2007 Tenn. Pub. Acts, Public Chapter 602, Sections 68 and 89 came into effect on January 1, 2008.