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## Research and Development

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This bulletin describes the various sales tax exemptions available for research and development activities in New York State.

### Exemption for tangible personal property

Purchases of tangible personal property for use or consumption directly and predominantly in research and development in the *experimental* or *laboratory* sense can be made without paying sales tax.

Research and development in the *experimental* or *laboratory* sense means research that has as its ultimate goal:

- basic research in a scientific or technical field of endeavor;
- advancing the technology in a scientific or technical field of endeavor;
- development of new products;
- improvement of existing products; or
- development of new uses for existing products.

Activities **not** eligible for the exemption include:

- testing or inspecting materials or products for quality control;
- efficiency surveys;
- management studies;
- consumer surveys, advertising, and promotions; and
- research in connection with literary, historical, or similar projects.

### Direct and predominant use

*Direct use* means that materials, machinery, equipment, and supplies are used to perform the actual research and development work. Tangible personal property for direct use would broadly include:

- materials worked on;
- machinery, equipment, and supplies used to perform the actual research and development work; and
- CAD/CAM computer software and hardware systems used to perform research and development.

Use in activities collateral to the actual research and development process does not qualify as use directly in research and development.

*Predominant use* means that tangible personal property is used more than 50% of the time directly in research and development.

*Example: Laboratory tables for use in a research laboratory are exempt, but desks and chairs used by clerical personnel are not used directly in research and are not exempt.*

*Example: Paper on which research and development test results are recorded is exempt. However, paper for in-house printing of a summary of research and development findings so that decisions may be made on marketing a new product is taxable, as the decision-making process is administrative.*

*Example: A company constructs an apparatus in its own machine shop, for use only in its research department in experiments on the strength of different alloys. It purchases the materials from which the apparatus is constructed, and special tools and dies needed to construct the apparatus from its suppliers.*

*The materials used to construct the apparatus may be purchased without payment of tax, as they are directly and predominantly used in research. However, the special tools and dies are not exempt, as they are not used directly and predominantly in research.*

*Example: An aircraft manufacturer assembles two airplanes, which it uses for function and reliability testing prior to manufacturing the airplane for sale. The parts, equipment, instrumentation, and fuel used with the airplanes during the testing phase are exempt as they are used directly and predominantly in research and development.*

### **Installation and repair services**

Charges for installation and repair services performed on exempt research and development equipment do not qualify for this exemption. Sales tax must be paid on all installation and repair work performed on exempt research and development equipment.

### **Utilities**

Gas, electricity, refrigeration, and steam, and gas, electricity, refrigeration, and steam service, are exempt from sales tax if used or consumed directly and *exclusively* (100%) in research and development.

### **Exemption certificates and refunds**

#### **Tangible personal property**

Qualifying purchases of tangible personal property can be made without the payment of sales tax by giving the supplier a completed [Form ST-121, Exempt Use Certificate](#). [Form AU-11, Application for Credit or Refund of Sales or Use Tax](#), should be used to apply for a refund or credit of sales tax paid on qualifying purchases.

#### **Utilities**

Utilities are often purchased in bulk or in a continuous flow, and some of what is purchased is used for non-exempt purposes. In these circumstances, the purchaser can either:

- pay sales tax on the purchase of the utilities and use [Form AU-11](#) to apply for a credit or refund of sales tax paid on the portion of the utilities used for exempt purposes (see Tax Bulletin [How to Apply for a Refund of Sales and Use Tax \(TB-ST-350\)](#)); or
- use [Form ST-121](#) to purchase the utilities exempt from sales tax, provided the purchaser pays any state and local taxes due on the taxable portion of the utilities when filing its sales and use tax return (see Tax Bulletin [Use Tax for Businesses \(TB-ST-910\)](#)).

The purchaser must maintain adequate records with respect to the portion of utilities used directly and exclusively in research and development. The purchaser must submit

an engineering survey or other analysis used to compute the amounts used in an exempt manner.

*Example: A biological laboratory that develops new vaccines has an autoclave to sterilize instruments and a refrigerator for storage of the vaccine, both run by electricity. It receives one electric bill, which covers general lighting and the electricity required for the autoclave and refrigerator. The laboratory may claim a refund of the portion of the tax applicable to the charge for electricity required to run the autoclave and refrigerator.*

Note: A Tax Bulletin is an informational document designed to provide general guidance in simplified language on a topic of interest to taxpayers. It is accurate as of the date issued. However, taxpayers should be aware that subsequent changes in the Tax Law or its interpretation may affect the accuracy of a Tax Bulletin. The information provided in this document does not cover every situation and is not intended to replace the law or change its meaning.

#### **References and other useful information**

**Tax Law:** Sections 1115(a)(10) and 1115(b)(ii)

**Regulations:** Section 528.11

**Bulletins:**

[How to Apply for a Refund of Sales and Use Tax \(TB-ST-350\)](#)  
[Use Tax for Businesses \(TB-ST-910\)](#)