How the R&D Tax Credit Supports New Jersey Manufacturers

Federal and State R&D Tax Credits provide excellent opportunities for innovation in New Jersey's manufacturing industry.

R&D Tax Savers

By Charles R. Goulding and Daniel Audette

Manufacturing in New Jersey is central to the state's economy. Currently, there are 11,130 manufacturers in the state and New Jersey manufacturing clusters produce $156 billion in annual output according to the New Jersey Manufacturing Extension Program (NJMEP) 2019 State of New Jersey Manufacturing Industry Report. The range of manufacturers within New Jersey varies, with pharmaceutical, food, aerospace and defense manufacturers among the top sectors.

One of the reasons New Jersey's manufacturing sector is so strong is due to the state's strategic location; exporting can be done by rail, air, sea or road. Products can be transported to large sites on the East, such as New York City and Washington D.C., by rail or by main arteries running through the state such as I-95 or I-287. Airports within the state provide flights to 90 cities and 110 international locations. Finally, the Port district of New York and New Jersey is the largest maritime cargo center on the East Coast and is one of the busiest seaport areas in the country.

Due to the strength of New Jersey's manufacturing sector, there are a lot of opportunities for companies to utilize both Federal and New Jersey State R&D Tax Credits. These tax credits can incentivize companies who invest in new or improved products or processes for their businesses.

The Research & Development Tax Credit

Enacted in 1981, the federal Research and Development (R&D) Tax Credit allows a credit of up to 13% of eligible spending for new and improved products and processes. Qualified research must meet the following four criteria:

- New or improved products, processes, or software
- Technological in nature
- Elimination of uncertainty
- Process of experimentation

Eligible costs include employee wages, cost of supplies, cost of testing, contract research expenses, and costs associated with developing a patent. On December 18, 2015, President Obama signed the bill making the R&D Tax Credit permanent. Beginning in 2016, the R&D credit can be used to offset Alternative Minimum tax and startup businesses can utilize the credit against $250,000 per year in payroll taxes.

The New Jersey State R&D Tax Credit

The New Jersey R&D tax credit provides a refund of 10% of the excess qualified research expenses over a base amount plus 10% of the basic research payments. Eligible expenditures generally include salaries and wages of engineers working on a project, the cost of supplies, materials, scrap consumed in the R&D work and in many cases even third party contractor fees incurred for the research. The goal is to provide an incentive for businesses to increase their spending on new or improved products and processes each year.

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Eligible expenses for the New Jersey state credit are defined according to the same federal standards as defined in (section) 41(d) of the Internal Revenue Code.

Food Manufacturing

New Jersey has a significant amount of food manufacturing companies due to the state's vast amount of available resources. For example, NJMEP located in Cedar Knolls, New Jersey, hosts comprehensive food safety training taught by experienced and well-respected industry professionals. NJMEP gives businesses the opportunity to take a holistic approach to food safety compliance through a combination of extensive, practical hands-on experience to provide a clear understanding of the business imperatives that are critical to success. With resources such as the NJMEP available to companies, numerous well-known food manufacturers as well as smaller growing food companies have

invested in manufacturing facilities in New Jersey.

New Jersey ranks 8th nationally in food manufacturing plants by volume. The thriving food production industry encompasses everything from vegetable growing to sophisticated manufacturing operations. Despite the state's small geographical area, New Jersey food producers are able to compete on a national level. New Jersey has food production establishments that employ over 30,000 paid workers, representing a payroll of $1.3 billion according to a recent report released by the Food Innovation Center at Rutgers University.

This pool of workers includes engineers and food scientists who create formulas, test ingredients and develop products. When technical employees in New Jersey engage in activities such as these, the companies they work for may be eligible for Federal and State Research and Development Tax Credits.

Food manufacturers can qualify for an R&D Tax Credit in multiple ways – both for product development, but also for process improvement. Sample activities that food manufacturers do that qualify include: experimenting with new ingredients, shelf life testing and maximization, initiatives to increase nutritional value, and incorporating new or lean manufacturing procedures. New Jersey's pool of workers includes engineers and food scientists who create formulas, test ingredients and develop products. When technical employees in New Jersey engage in activities such as these, the companies they work for may be eligible for Federal and State Research and Development Tax Credits.

Pharmaceutical Manufacturing

Pharmaceutical manufacturing is another one of the largest manufacturing sectors within New Jersey. In fact, New Jersey is home to 14 of the world's 20 largest pharmaceutical companies, as well as over 400 biotechnology companies. The New Jersey biotech industry has grown by more than 400% since the turn of the millennium. These businesses are driven by a core network of world renowned research institutions including Princeton University, Rutgers and the State University of New Jersey as well as a collaborative network of technology incubators and economic stimulators such as NJMEP and the New Jersey Economic Development Authority (NJEDA).

In the pharmaceutical sector, many large-scale chronic diseases, such as diabetes and asthma, are becoming increasingly well controlled. Data driven technology and artificial intelligence are also evolving in this sector, as patients become more involved in decision making and drugs become increasingly tailored to individual nuances and characteristics. Meanwhile, the quest to treat and cure specialty and rare-diseases continues as new options for treating spinal muscular atrophy, rare chronic liver disease, severe asthma and other similar conditions emerge.

In Biotech, gene-editing technology is increasingly evolving while new medicinal uses for hemp and marijuana continue to emerge since New Jersey become the 14th state to legalize medical marijuana on January 11, 2010. When innovators develop technology such as these, they may be eligible for R&D Tax Credits which are available to stimulate innovation.

This development of new treatments or new techniques can qualify a pharmaceutical company for the R&D Tax Credit. However, the credit also incentivizes activities related to developing or improving a company's manufacturing process. Typical activities that qualify for R&D Tax Credits for pharmaceutical companies include integrating new techniques and procedures, integrating new and emerging technologies, testing, manufacturing or laboratory process improvements, and integration of new equipment.

Aerospace & Defense Manufacturing

The aerospace and defense manufacturing industry is significant and has a large potential for growth in New Jersey. There are numerous major defense contracting companies who reside in New Jersey, and many more companies manufacturing components to support the industry.

There is a lot of potential to utilize R&D Tax Credits in New Jersey's aviation and defense industries. Typical activities include the development of new or improved components, manufacturing process improvements, software developments, logistics improvements and warehouse automation.

Robotics Manufacturing

Robotics and automated technology have become a widely used form of equipment within manufacturing facilities. They offer multiple advantages, such as increased efficiency and ease of production activities. More and more New Jersey companies are implementing robotics into their businesses and have greatly improved their manufacturing processes.

Incorporating robotics and automation into existing processes tends to require a significant design effort, whether it is developed internally or through the help of a 3rd party. Both efforts can qualify for R&D tax Credits, including software development, algorithm development and tuning, machine learning, logic programming and integration, development of control systems and component selection.

3D Printing Manufacturing

3D printing has become increasingly used by companies to create prototypes of potential products or even to develop certain parts for products themselves. Companies who invest in 3D printing can often qualify for significant R&D Tax Credits, both where either new processes are developed utilizing 3D printing, or where traditional manufacturing methods are revised to incorporate 3D printing. A portion of the wages or other costs associated with developing these new or improved processes can be monetized as the credit. Also many companies who incorporate 3D printing are doing so to develop prototypes. The development of prototypes is generally a qualifying activity for R&D Tax Credits as well.

Conclusion

There are many successful manufacturing sectors in New Jersey including food, pharmaceutical, and aerospace & defense. Many of these companies utilize 3D printing, robotic devices and other similar technologies to automate their production processes, as well as develop other new or lean manufacturing improvements. Manufacturing companies who are involved with research and development activities such as this are likely eligible Federal and New Jersey State Research and Development Tax Credits which are available to stimulate innovation.

For information on R&D Tax Credits go to www.njmep.org or call 973-998-9801.

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