§ 3102-e. Emerging technology industrial classifications. 1. Definitions. As used in this section:

(a) "Department" shall mean the New York state department of taxation and finance.

* (b) "Emerging technologies" shall mean:

(1) advanced materials and processing technologies that involve the development, modification, or improvement of one or more materials or methods to produce devices and structures with improved performance characteristics or special functional attributes, or to activate, speed up, or otherwise alter chemical, biochemical, or medical processes. Such technologies shall include, but not be limited to, the following: metal alloys, metal matrix and ceramic composites, advanced polymers, thin films, membranes, superconductors, electronic and photonic materials, bioactive materials, bioprocessing, genetic engineering, catalysts, waste emissions reduction and waste processing technologies;

(2) engineering, production, and defense technologies that involve knowledge-based control systems and architectures, advanced fabrication and design processes, equipment, and tools, or propulsion, navigation, guidance, nautical, aeronautical and astronautical ground and airborne systems, instruments, and equipment. Such technologies shall include, but not be limited to, the following: computer-aided design and engineering, computer-integrated manufacturing, robotics and automated equipment, integrated circuit fabrication and test equipment, sensors, biosensors, signal and image processing, medical and scientific instruments, precision machining and forming, biological and genetic research equipment, environmental analysis, remediation, control, and prevention equipment, defense command and control equipment, avionics and controls, guided missile and space vehicle propulsion units, military aircraft, space vehicles, and surveillance, tracking, and defense warning systems;

(3) electronic and photonic devices and components for use in producing electronic, optoelectronic, mechanical equipment and products of electronic distribution with interactive media content. Such technologies shall include, but not be limited to, the following: microprocessors, logic chips, memory chips, lasers, printed circuit board technology, electroluminescent, liquid crystal, plasma, and vacuum fluorescent displays, optical fibers, magnetic and optical information

storage, optical instruments, lenses, and filters, simplex and duplex data bases, and solar cells;

(4) information and communication technologies, equipment and systems that involve advanced computer software and hardware, visualization technologies, and human interface technologies. Such technologies shall include, but not be limited to, the following: operating and applications software, artificial intelligence, computer modeling and simulation, high-level software languages, neural networks, processor architecture, animation and full-motion video, graphics hardware and software, speech and optical character recognition, high-volume information storage and retrieval, data compression, broadband switching, multiplexing, digital signal processing, and spectrum technologies; and

(5) biotechnologies, which shall be defined as technologies involving the scientific manipulation of living organisms, especially at the molecular and/or the sub-molecular genetic level, to produce products conducive to improving the lives and health of plants, animals, and humans; and the associated scientific research, pharmacological, mechanical, and computational applications and services connected with these improvements. Activities included with such applications and services shall include, but not be limited to, alternative mRNA splicing, DNA sequence amplification, antigenetic switching, bioaugmentation, bioenrichment, bioremediation, chromosome walking, cytogenetic engineering, DNA diagnosis, fingerprinting, and sequencing, electroporation, gene translocation, genetic mapping, site-directed mutagenesis, bio-transduction, bio-mechanical and bio-electrical engineering, and bio-informatics; and

(6) remanufacturing technologies, which shall be defined as processes whereby eligible commodities are restored to their original performance standards and are thereby diverted from the solid waste stream, retaining the majority of components that have been through at least one life cycle and replacing consumable portions to enable such commodities to be restored to their original functions. For the purposes of this subdivision, "eligible commodities" shall mean commodities (excluding paper) used in conjunction with or as a part of equipment performing the functions of facsimile machines, photocopiers, printers, duplication equipment, or any combination thereof, including, but not limited to the

following: magnetic ink character recognition cartridges, photo conductor assemblies, electrostatic cartridges, thermal imaging cartridges, toner cartridges, ink jet cartridges, and printer cartridges. Provided further, that "eligible commodities" shall also include equipment used to record single frame images on film, where such equipment and film are marketed and sold as a single integrated consumer product, and where such equipment and film may be submitted in whole to a photograph processor for the purposes of processing.

* NB Applies to taxable years beginning on or after January 1, 2001

(c) "Qualified emerging technology company" shall mean a company located in New York state: (1) whose primary products or services are classified as emerging technologies and whose total annual product sales are ten million dollars or less; or (2) a company which has research and development activities in New York state and whose ratio of research and development funds to net sales equals or exceeds the average ratio for all surveyed companies classified as determined by the National Science Foundation in the most recent published results from its Survey of Industry Research and Development, or any comparable successor survey as determined by the department, and whose total annual product sales are ten million dollars or less.

The definition of "research and development funds" shall be the same as that used by the National Science Foundation in the aforementioned survey.

2. The New York state science and technology foundation shall prepare a report, no later than March thirty-first, two thousand four, analyzing the effectiveness of the tax credits created by subdivisions twelve-E and twelve-F of section two hundred ten of the tax law, in light of their influence on the start-up, growth, and retention of emerging technology companies in the state, on job growth within high technology companies, and on the expansion of collaborative research and development undertaken by industry and academia. The department shall annually provide the New York state science and technology foundation with aggregate statistics, pursuant to existing legal requirements for confidentiality of taxpayer records, on the number of taxpayers applying for such credits, the number of employees employed full time by

qualified emerging technology companies, and the total amount and the amount of incremental basic research payments, made to a qualified organization. This report shall be delivered to the governor, the speaker of the assembly, the temporary president of the senate, and the chairpersons of the assembly committee on economic development, job creation, commerce and industry and the senate committee on commerce, economic development and small business.