MARYLAND STATE DEPARTMENT OF EDUCATION
Preparing World-Class Students

Lillian M. Lowery, Ed.D.
State Superintendent of Schools

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TO: Members of the State Board of Education

FROM: Lillian M. Lowery, Ed.D.

DATE: October 31, 2012

SUBJECT: Waiver Request: Code of Maryland Regulations (COMAR) 13A.04.01 Programs in Technology Education

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PURPOSE:

The purpose of this item is to present a request for a one-year waiver of the regulations requiring implementation of content standards for the instructional program in Technology Education. The request is from Dr. Jack Smith, Superintendent of Calvert County Public Schools.

BACKGROUND:

In 1992, the Maryland State Board of Education adopted new public high school graduation requirements that included one credit in Technology Education as part of the specified credit requirements. Additionally, students may also choose two credits in Advanced Technology Education as an elective pathway to meeting the graduation requirements. In doing this, Maryland became the first state in the nation to recognize the importance of a population knowledgeable about technology – its evolution, systems, techniques, uses and social and cultural significance.

Currently, Technology Education instructional programs are developed based on the state curriculum which is aligned with the standards published by the International Technology and Engineering Educators Association (ITEEA). Technology Education continues to be an integrated instructional program that results in the application of mathematics and science concepts in technology systems. Students discover, create, solve problems and construct by using a variety of tools, machines, materials, processes and computer systems. Every local school system in Maryland offers students opportunities to enroll in a variety of courses intended to meet the one-credit graduation requirement.

The advent of the Race to the Top Grant allowed the Maryland State Department of Education (MSDE) to expand its efforts to increase Science, Technology, Engineering and Mathematics (STEM) education through a standardized course in Technology Education entitled, *Foundations of Technology* (FoT). School systems enter into an agreement with ITEEA to deliver the FoT content. To date, 19 school systems (including Calvert County) are using FoT as the primary course to deliver technology education instruction and fulfill the one-credit graduation requirement. School systems also use the two courses from Project Lead The Way's (PLTW) Pathway to Engineering program: *Introduction to Engineering Design* and *Principles of Engineering*. The PLTW engineering program aligns to the ITEEA standards for technological literacy.

EXECUTIVE SUMMARY:

Beginning in September 1993 and every five years thereafter, LEA superintendents are required to certify their district's implementation of the required program of instruction in personal financial literacy education. The recent certification process included the completion of an online survey. The survey revealed that all 24 LEAs have made great progress in implementing programs of instruction in Technology Education that is aligned to the standards. With the added resources from the Race to the Top (RttT) grant, Technology Education instruction is being delivered with increasing consistency.

During the 2012 certification process, it became apparent that Calvert County's program of instruction in Technology Education was not fully upgraded. Adopting FoT and PLTW is moving the school system toward a more streamlined and consistent approach using these rigorous courses. Additionally, plans are underway to provide professional development to staff members in the Foundations of Technology and Project Lead the Way courses and to eliminate courses in the Educational Planning Guide that do not align with the standards set forth in the regulation. MSDE staff endorses this approach and will provide technical assistance as the school system works toward full implementation.

ACTION:

COMAR 13A.01.01.02-1 authorizes the board to grant waivers from its regulations. The Board is asked to approve a one year waiver of the requirement for a program of instruction in technology education in Calvert County while they work to ensure full implementation of the COMAR requirement.

LL: kmo
Attachment

ATTACHMENT I

Calvert County Public Schools

Jack R. Smith, Ph.D., Superintendent of Schools

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August 29, 2012

Lillian M. Lowery, Ed.D.
State Superintendent of Schools
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21202-2595

Dear Dr. Lowery:

Calvert County Public Schools (CCPS) is requesting a two-year waiver to implement a technology education program in grades 9-12 that meets the requirements set forth in regulations 13A.04.01.01 of the Code of Maryland Regulations (COMAR).

Currently, our preparation to implement technology education instruction is evident through the following initiatives:

- Phased in implementation of Project Lead the Way (PLTW) PreEngineering at all four high schools;
- Transition from previous Technology Education model to the Foundations of Technology (FOT) model designed by ITEEA.

Please refer to the school system's survey responses for further information regarding steps taken to teach technology education.

However, to fully meet the COMAR requirement so that all students at the high school level complete a technology education course aligned to the State Curriculum and COMAR, the following is planned to take place:

- Provide training for staff in FOT and PLTW;
- Continue to recruit students into PLTW and FOT through their experiences in our Gateway to Technology (GTT) programs in each middle school;
- Eliminate from the list of CCPS Technology Education Credit courses found within our Educational Planning Guide any course which does not meet the regulations set forth by 13A.04.01.01 of COMAR.

- This would leave the following courses as options for Technology Education credit:
  - Technology Education Credit:
    - Foundations of Technology
    - Introduction to Engineering Design
    - Principles of Engineering
  - Advanced Technology Education Credit:
    - Manufacturing Engineering Technology I
    - Core Technology and the Design World
    - Technology Design and Development

Rose C. Crunkleton, President • William R. Chambers, Vice President
Dawn C. Balinski • Eugene M. Karol •Tracy H. McGuire • Christine Lukban, Student Member

We expect to be in full compliance with the COMAR by the beginning of the 2014-2015 school year. If you have any questions or need further clarification regarding this waiver request, please contact Yovonda Kolo, Supervisor of Science and STEM at 410-535-7278 or via email at koloy@calvertnet.k12.md.us.

Sincerely,

Jack R. Smith, Ph.D.
Superintendent of Schools

c: Lynne Gilli, MSDE
Robin Welsh, Deputy Superintendent
Yovonda Kolo, Supervisor