



National  
Center for  
Science  
Education

*Defending the teaching of evolution in the public schools*

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January 7, 2010

Nina A. Ford  
State Board of Elementary and Secondary Education  
PO Box 94064  
Capitol Station  
Baton Rouge LA 70804-9064

Dear Ms. Ford,

The National Center for Science Education is a nonprofit organization affiliated with the American Association for the Advancement of Science and dedicated to ensuring that science, especially evolution, is taught accurately and honestly in the public schools. We are concerned about Bulletin 741, §2304 Science Education, Part E, implementing Act 473, the Louisiana Science Education Act.

We have previously expressed our concern that the Act and policies implementing it approved by the Board of Elementary and Secondary Education are written so loosely as to allow creationism and other religious concepts to be taught in classrooms, miseducating students and violating students' and parents' constitutional rights. In order to provide an accurate science education, protect the civil liberties of students, and shield local educational authorities from costly litigation, BESE's policy implementing this act must close any loopholes that might allow creationism or other non-science into science classrooms. NCSE and many scientific societies have commented on these policies throughout the process, and we write now to reiterate our concerns, and to apply them to a policy currently open for public comment, Part E, which describes how challenged supplementary materials will be reviewed.

The process for review created in Part E is biased against the scientific and constitutional concerns of parents, and we ask that the policy be revised. The policy creates an onerous process for individual parents when simpler options are available. The policy allows inappropriate and constitutionally suspect material to remain in classrooms longer than necessary. It disregards the professional expertise of Department of Education staff in favor of an adversarial system in which defenders of suspect materials are given more of a voice than concerned parents and citizens. We ask that BESE revise Part E to reflect recommendations that were considered by the Student/School Performance and Support Committee of BESE at

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its September 16, 2009, meeting. Though imperfect, these recommended revisions are far less troubling than those published in the Louisiana Register in November 2009. Not only do the original recommendations represent a better policy, but the changes BESE has made to these recommendations in the proposed revisions published in April needlessly put the quality of Louisiana's public education at risk and create concerns about the constitutionality of the entire process.

Supplemental materials can serve a useful role in promoting critical thinking, but such materials must be chosen carefully. The Louisiana Content Standards make clear that the goal of science education is not just narrow subject competence, but to "prepare students to become informed citizens" and "for all students to become scientifically literate and reflective of the inherent nature of scientific knowledge, methods, and processes" (Louisiana Content Standards, Benchmarks, and Grade Level Expectations for Science §101.A). The standards add that "[t]he goal of science is to describe, explain, and predict natural phenomena and processes" (Louisiana Content Standards, Benchmarks, and Grade Level Expectations for Science §301.A, emphasis added.)

The selection or rejection of supplementary materials must in all cases accurately reflect the nature of science; to do otherwise would misinform students about the nature of science itself, not to mention the specific subject matter at hand. The professional staff at the Louisiana Department of Education understand these standards and are recognized as pedagogical experts. Their assessment of supplementary materials should be of the foremost importance to BESE's review of challenged supplements.

Given the value of supplemental materials for teaching and the dangers from inappropriate materials, it is fitting that Act 473 gives BESE the power to forbid certain supplements. Unfortunately, the process for challenging supplemental material laid out in Part E is unclear, ill-conceived, and onerous. This process unnecessarily complicates what should be a straightforward decision based on the professional expertise of Department of Education staff and BESE. In considering citizen input concerning supplementary materials, the process should not require a "meeting" at which "any interested party" could "present their arguments." Such a meeting places a needless burden on the finances and time of concerned parents, teachers, and staff. It would be better to employ the extant system of public comment on textbooks for adoption, which allows written comments to be submitted by a set deadline. In the absence of any clear deadline for resolution of a challenge, it is likely that inappropriate material would remain in a classroom indefinitely after a challenge.

Such a swift procedure could be ensured by allowing LDoE to conduct a summary review of challenged material, reviewing written comments by citizens, teachers, publishers, and other interested parties, with recommendations sent to BESE shortly after a challenge is issued. That rapid assessment could subsequently be challenged, but questionable material would remain out of the classroom while the disagreements were addressed. Furthermore, BESE could instruct LDoE to generate a list of clearly inappropriate material based on their expertise and experience as educators, and provide that list to BESE for approval. Citizen challenges to those materials would be automatically sustained, while challenges to other material should be reviewed by LDoE staff based on a timely process involving written public comment and peer review by recognized experts in science and science education. Such a process would ensure that good materials could be used freely in classrooms while inappropriate material would not undermine science education and expose schools to lawsuits — and would not impose a burden on public participation.

Instead of such a timely and straightforward process, Part E gives the experts at LDoE a severely limited role in the review of materials, and permits the defenders of challenged content two voices on a review panel (one reviewer appointed by the school, one by the publisher), compared to only one reviewer named by the challenging parent. There is no timeline specified for review, and no requirement that experts named be experts in both science pedagogy and the specific content under discussion, nor is any provision made for ensuring parity in terms of the availability of experts. Will travel funds be available for reviewers? Will reviewers be compensated for their time? Failing to provide such compensation further burdens the citizen issuing a challenge, since the publisher and school district will be better positioned to compensate reviewers for their time and effort. Absent any requirement that the reviewers be experts in relevant fields, the review process could transform into a public relations war, rather than a substantive evaluation of the merits of a challenged supplement. Part E compounds these inadequacies by forbidding LDoE from editing or independently assessing the comments by appointed reviewers, and by limiting the ability of LDoE to appoint its own independent reviewers. At a minimum, LDoE should be required, rather than merely permitted, to appoint its own reviewers.

It would be far better to avoid the adversarial process created by allowing challenger and defenders to appoint three reviewers, and simply adopt the proposal discussed in September 2009, in which LDoE would appoint three independent reviewers and forward their recommendations to BESE.

Most of the challenges likely to be faced by BESE will be straightforward, and the lengthy and complex process created by Part E will be excessive. Many inappropriate supplements will fall into categories that have been ruled unconstitutional — advocating creationism, for instance. No elaborate external review is needed for such materials, nor for content that is not grade-level appropriate or that has been judged scientifically inaccurate by reviewers in the scientific and educational literature. Allowing lengthy review of such inappropriate content simply prolongs the violation of students' and parents' rights — and the harm to students' education.

On behalf of our members — scientists, parents, teachers, clergy, and students — the National Center for Science Education strongly recommends that BESE revise §2304, Part E in accordance with the recommendations considered by the Student/School Performance and Support Committee of BESE at its September 16, 2009, meeting. These recommendations would create a better policy, would improve science education, and would help BESE and Louisiana LEAs to avoid unconstitutionally advancing religion.

Thank you for your consideration and your efforts to improve science education in Louisiana.

Sincerely,

A handwritten signature in black ink, appearing to read "Eugenie C. Scott". The signature is fluid and cursive, with the first name being the most prominent.

Eugenie C. Scott, Ph.D., Executive Director