

**ATTACHMENT D**

**NIOSH-Approved Spirometry Course Sponsorship  
Renewal Application**

## TRAINING REQUIREMENTS OF THE COTTON DUST STANDARD

Authority for approval of training courses in pulmonary function testing as required in the Cotton Dust Standard, 29 CFR 1910.1043, has been delegated to the National Institute for Occupational Safety and Health.

Application for approval should be submitted to:

Lu-Ann Beeckman-Wagner, Ph.D.  
CDC/NIOSH  
Division of Respiratory Disease Studies  
Mail Stop H-G900.2  
1095 Willowdale Road  
Morgantown, West Virginia 26505-2888

The Pulmonary Function Testing Course Approval application which provides guidelines for faculty, content, and equipment is attached along with model course objectives and Appendix D of the Standard.

In order to expedite processing of applications for approval, it would be appreciated if you electronically submit your copy of all material requested to:

Lu-Ann F. Beeckman-Wagner, Ph.D.  
Research Physiologist  
Division of Respiratory Disease Studies  
CDC/NIOSH  
[LBeeckman@cdc.gov](mailto:LBeeckman@cdc.gov)

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Public reporting burden for this collection of information is estimated to average 6 hours per course application, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Road, MS D-24, Atlanta, GA 30333, Attn: PRA (0920-0138). Do not send the completed form to this address.

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NIOSH-Approved Spirometry Course Sponsorship Renewal Application

Please carefully complete all the questions below (print or type). The course content requirements are derived from the Cotton Dust Standard and additional NIOSH requirements. You will be requested at the end of this form to certify that in your professional judgment, you meet these minimum requirements.

1. Name, Address, Telephone Number, and NIOSH Course Sponsor # :

NIOSH-Approved Course Sponsor # \_\_\_\_\_

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If your sponsorship has more than one course director who uses the **same** manuals, handouts, equipment, and faculty, please list here the names of all directors who use these materials. Otherwise, each course director **must submit a separate renewal** application.

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2. Course Design, Content, and Frequency:

a. Course Design: The course should consist of approximately **16** hours of instruction:

1. At least **4** hours of formal lectures and/or audio-visual material,
2. At least **8** hours of small group practical instruction with no more than six students per instructor,
3. At least **2** hours per student devoted to evaluation and testing of the student's spirometric testing skills.

b. Course Content for the requirements in (2.a.) should include:

1. Basic physiology of the forced vital capacity maneuver and the determinants of airflow limitation with emphasis on the relation to repeatability of results,
2. Instrumentation requirements including calibration procedures, sources of error, and their correction,
3. The most current ATS/ERS Standardization Guidelines for spirometry testing,
4. Performance of testing including subject coaching, recognition of improperly performed maneuvers, and corrective actions,
5. Data quality with emphasis on repeatability,
6. Actual use of the equipment under supervised conditions.

If a substantial amount of material exclusive of the above is taught, it must be taught in **addition** to the minimum 16 hours of course time.

Our course offerings will have:

\_\_\_\_\_ Hours of Lecture  
\_\_\_\_\_ Hours of Practicum  
\_\_\_\_\_ Hours of Evaluation

**An agenda showing lecture topics, time allocations, and lecturers/instructors must be attached to this renewal application.**

c. Course Frequency

Each course director must teach at least one course and a total of five students each calendar year. **Failure to meet these minimum requirements will result in suspension as a course director.**

3. Instructor Manual/Student Manual/Audio-Visual Programming:

The instructor's guide and student material should adequately cover the required course content (Item 2b above). Submit with this application one copy each of all materials to be distributed to the students, as well as one copy of each audio-visual program (video, DVD, PowerPoint presentations, etc.) you may use in the instruction of your class. The AV program(s) will be returned to you after your application has been reviewed.

4. NIOSH-Approved Faculty:

Attached to this form, you will find a table listing currently approved faculty for your sponsor. Please indicate if an individual is no longer teaching in your course. If you currently have faculty who are not listed in the table, please forward a request to NIOSH for their approval and include a current CV from that individual.

5. List of Practicum Equipment:

a. Spirometers:

At least one Spirometry System shall be provided for every six students. All of the spirometers used must meet the minimum equipment requirements (CFR Section 1910.1043, Appendix D. I, a to j). List specific equipment below:

Manufacturer	Model No.	Approximate Date Acquired
1.		
2.		
3.		
4.		
5.		
6.		

a. Calibration Syringes:

There shall be a minimum ratio of one calibrating syringe 2 liters or larger (3 liters recommended) for every two spirometry systems. List the manufacturer, model number, and syringe volume to be used:

Manufacturer	Model No.	Syringe Volume
1.		
2.		
3.		
4.		
5.		
6.		

6. Notification Procedures

Any changes in course faculty, content, or equipment must be reported to NIOSH for approval. All dates of prospective courses must be submitted to NIOSH at least 30 days **prior to** such courses. (Telephone or electronic notification, as soon as a course date is known, is **required** in cases when a course is scheduled without time for the 30-day notice).

The sponsor will provide NIOSH with course dates and the number of students for each course completed on an annual basis, or sooner if the sponsor wishes. An electronic reporting form will be available on the NIOSH internet for this purpose.

7. Course Director Certification

I hereby certify that I have reviewed and understand the Medical Surveillance Requirements as stated in the Cotton Dust Standard. I certify that course content, materials, equipment and faculty are adequate and meet minimum requirements. I have completed this form as accurately and fully as possible. I understand that if during a NIOSH site visit the course does not comply with the application criteria and statement I have made, approval will be withdrawn.

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Course Director Signature

Date

ATTACHMENT 1

APPROVED FACULTY LIST FOR YOUR SPONSOR

Listed below are the names of faculty members who have been approved by NIOSH to teach in your sponsor's NIOSH-Approved Spirometry Training Course. Please review the faculty names and indicate if the individual is no longer teaching. If you are a course director in a geographically different location than the course sponsor, please indicate only those members who have assisted you in your immediate course.

**NIOSH Sponsor # XXX – University of XXXXXX:**

Faculty Member's Name	Course Director	Lecturer	Practicum Instructor	No Longer Teaching
Dr. AAA	✓	✓	✓	<input type="checkbox"/>
Dr. BBB	✓	✓	✓	<input type="checkbox"/>
Mr. CCC		✓	✓	<input type="checkbox"/>
Ms. DDD		✓	✓	<input type="checkbox"/>
Ms. EEE		✓	✓	<input type="checkbox"/>
Mr. FFF			✓	<input type="checkbox"/>
Mr. GGG			✓	<input type="checkbox"/>