

April 15, 2003

Jean Edouard
Director of Education and Training
NY State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-5062

Dear Jean:

Attached is a proposed four-day curriculum for the Weapons of Mass Destruction (WMD) Training which the Hunter College Center for Occupational and Environmental Health proposes to undertake during the 2003-2004 academic year, based on an NIEHS grant for which the Center is applying as a longtime partner in the NJ/NY Hazardous Waste Workers Training Consortium (NIEHS Notice NOT-ES-03-008, Due Date: April 25). The eight million dollars in supplementary funds available from NIEHS for this WMD training is available only to participants in an already existing Hazwaste Training Consortia.

The proposed curriculum is a modular three-day course, with one day each devoted to WMD Chemical, Biological and Radiological Hazards, followed by a single, final day devoted to a Train-the-Trainers module. This curriculum should be viewed as a draft curriculum, and can be changed to meet the specific needs of the DEC. We propose to have two trainers with expertise in the modular area being presented for each of the four days. Among the faculty for this course will be:

- Dr. David Kotelchuck, CIH (WMD Chemical and Radiological Hazards), Hunter IH faculty, COEH Center Director;
- Dr. Jack Caravanos, DrPH, CIH, CSP (WMD Chemical and Biological Hazards), Hunter IH Director, Co-Director of Hunter Program in Bioterrorism Preparedness for Laboratory Personnel;
- William Wallace, MS (WMD Chemical and Radiological Hazards), Hunter IH adjunct faculty, Director Office of Environmental Investigations, NYC Dept. of Health, who will lecture in this course in his capacity as a private consultant
- Andrew Burgie, MS, Director of the Hunter Hazardous Waste Training Project, who will train and assist in each of the three WMD training areas
- Philip Hauck, MS, CIH (WMD Chemical and Biological Hazards), Env. Health and Safety officer, Mt. Sinai Medical Center, and adjunct faculty member in the Hunter Program in Bioterrorism Preparedness for

Laboratory Personnel. He will lecture in this course in his capacity as a private consultant.

The one-day Train-the-Trainers module will be taught by Dr. Kotelchuck or Dr. Caravanos, both senior faculty members at Hunter College, with Mr. Burgie, the chief trainer for the Hunter Hazwaste Training project. A course manual for covering each of the three WMD training areas, as well as a Train-the-Trainers supplementary manual, will be developed by Drs. Kotelchuck and Caravanos and Mr. Burgie during this Summer (2003), using funds currently available at the Hunter COEH Center (in anticipation of receiving the federal grant) so that training at the DEC and for the other open enrollment courses planned in NYC can begin after Sept. 1 of this year, when approved NIEHS funds will be available.

Hunter proposes to deliver two to three Train-the-Trainer courses to the NYSDEC after September 1, 2003 at no cost to the DEC, if the proposed NIEHS training grant is approved. The locations of these training sessions within NYS will be determined by the DEC.

This course will differ significantly from the one-day refresher courses currently offered to the DEC, since Hunter expects to provide SCBA respirators and Level A and B training suits and to use them for the WMD training at each of the Train-the-Trainer sessions. This equipment is currently available at Hunter College, and funds for its shipping and associated administrative costs will be part of the NIEHS funding application. Because of the need for equipment and its use in each of the three WMD modules, it is desired that no more than 20 DEC persons attend any training module. Also each module will involve two professionals, one a senior professional with demonstrated expertise in the WMD training area, and the other Mr. Burgie, whose presence at all four class sessions will provide a continuity for the all participants.

We hope this proposed curriculum, with modifications based on further discussions between Hunter and DEC staff, sufficiently meets the needs of the DEC so that it would be willing to send in a letter of support for this Hunter grant application. The letter of support from NYSDEC does not constitute a binding commitment by DEC to participate in the Hunter WMD Training program, if funded, but rather is a letter of intent that DEC plans to participate in the program as outlined in the grant proposal.

Because of the supplementary nature of this federal funding, it was publicly announced only on March 24, 2003, with an application deadline of April 25, 2003. Thus, for reasons beyond Hunter's control, it is necessary that we have a letter of support regarding this program by April 21, 2003.

We regret the need to ask NYSDEC for such an early decision, before it perhaps has had a full chance to consider all of its needs and options. But this funding represents a one-time-only chance to apply for and receive such funds, and presents many favorable options to both Hunter and DEC. Certainly the association between Hunter and the DEC in hazardous waste and emergency response training goes back many years, and has been

a mutually beneficial one. We hope that this association can continue as this nation and our state begins to cope with new health and safety problems and training needs.

If you have any further questions, please do not hesitate to email me with them at dkotelch@hunter.cuny.edu or call me at 212-481-4357.

Sincerely,

Dr. David Kotelchuck, CIH
Assoc. Professor and Director, Hunter College Center for
Occupational and Environmental Health.

Cc: Jason Corburn, Assoc. Director, COEH
Andrew Burgie

Weapons of Mass Destruction (WMD) Train-the Trainer Course
(Curriculum for Modular 4-day Course)

Day 1: Introduction and WMD Chemical Hazards

- 9-10 am Introduction to WMD Training
-- Types of WMD Hazards: Chemical, Biological and Radiological
-- Broad introduction to toxicology, routes of entry, symptoms for WMD types
-- Broad introduction to control measures
- 10-10:15 Discussion and questions re the goals of this training
- 10:15-10:30 Break

WMD CHEMICAL HAZARDS

- 10:30-11:10 Introduction to WMD Chemical Hazards
-- Typically acute exposures and effects
-- Types of WMD Chemical Hazards:
 - Pulmonary Damage (Arsine, Phosgene)
 - Neurological Damage (Nerve Gases: Sarin, VX)
 - Blistering Agents (Phosgene)
 - Cellular Poisons (Ricin)
-- Symptoms and Clinical Prognosis
-- Review of previous WMD chemical incidents (WWI, Tokyo, Iraq)
- 11:10-11:40 Tabletop exercises using and interpreting MSDS's for Arsine, Phosgene and Sarin
- 11:40-12 Review of DEC Agency procedures for responding to known or suspected chemical hazards, including WMD chemical hazards
- 12-1 LUNCH BREAK
- 1-1:20 Respiratory protection for WMD chemical agents
-- Atmosphere-Supplying Respirators needed: SCBA's and emergency escape respirators
-- Lecture and Hands-on Workshop with demonstrations of SCBA's and emergency escape respirators
- 1:20-2:15 Checkout and operation of SCBA's and emergency escape packs
-- Participants wear and fit test SCBA's and emergency escape packs
- 2:15-2:45 Other Personal Protection Equipment
-- EPA Levels of Protection A, B, C and D
-- Why A and B are necessary for chemical WMD
- 2:45-3 Break
- 3-4:45 Full Level B Dress-out (Note DEC may wish to make the dress-out and even the wearing of the respirator optional for participants based on their job responsibilities. Also some will be excused based on findings in the Agency's annual medical examination.)
- 4:45-5 Evaluation and suggestions for Day 2

Day 2: WMD BIOLOGICAL HAZARDS

- 9-10 am Introduction to WMD Biological Hazards
-- Types of WMD Biological Hazards: CDC Categories A and B
-- Modes of transmission
-- Delayed onset of diseases
-- Symptoms, Prognosis, Treatment
-- Psychological Effects
- 10-10:45 Case Study Review of 2002 Anthrax Outbreak in U.S.
-- Health effects and transmission
-- Routes of entry
-- Agency responses and lessons learned
- 10:45-11 Break
- 11-11:30 Review of DEC, federal and State procedures if outbreak known or suspected
- 11:30-12 Effective Health Communication to Calm Public Fears
- 12-1 LUNCH BREAK
- 1-1:30 Control measures for different biological agents
-- Key: No universal procedures or protocols
- 1:30-2:15 Respiratory protection for infectious diseases and specific biological agents (lecture plus hands-on)
- 2:15-3 Levels of protection for biological agents: EPA Levels A and B
- 3-3:15 Break
- 3:15-4:30 Case Study Review: Smallpox outbreaks and controls
-- Sources of disease, symptoms, treatment
-- Review recent U.S. voluntary vaccination program
-- Possible future outbreaks
- 4:30-4:45 Evaluation and suggestions

Day 4: Train-the-Trainers

- 9-10:30 Review of Training Manual and Powerpoint presentation (provided by Hunter) for each of the three WMD Training areas (1/2 hour each):
- Chemical
 - Biological and
 - Radiological
- 10:30-10:45 Break
- 10:45-12 Break up into three smaller groups (WMD Chemical, Biological and Radiological) and each prepares three different 10 minute talks on topics of their choice within their WMD category, using the provided manual and Powerpoint presentations as resources
- 12-1 Lunch Break
- 1-2 Three 10 minute presentations by candidate trainers on WMD Chemical Hazards, each followed by a collegial 10 minute group discussion on content and style of presentation
- 2-3 Three 10 minute presentations by candidate trainers on WMD Biological Hazards, each followed by a collegial 10 minute group discussion
- 3-3:15 Break
- 3:15-4:15 Three 10 minute presentations by candidate trainers on WMD Radiological Hazards, each followed by a collegial 10 minute group discussion
- 4:15-5 Group discussion on presentations as a whole, and recommendations for further resources (additional training, materials) needed by candidate trainers