



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

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May 17, 2005

OFFICE OF THE
REGIONAL ADMINISTRATOR

Valerie Nottingham
National Institutes of Health
NIH B13/2W64
9000 Rockville Pike
Bethesda, Maryland 20892

Re: Supplemental Draft Environmental Impact Statement for National Emerging Infectious Diseases Laboratories Boston, Massachusetts, CEQ # 20050138

Dear Ms. Nottingham:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we have reviewed the National Institutes of Health's (NIH) Supplemental Draft Environmental Impact Statement (SDEIS) for the National Emerging Infectious Diseases Laboratory (NEIDL) at the Boston University Medical Center Campus in Boston, Massachusetts.

The SDEIS describes the same proposed action detailed in the October 2004 DEIS. The proposed action includes the construction of a 194,000 square foot biosafety lab facility at the BioSquare Research Park in Boston. EPA commented on the DEIS for this project in January 2005. At that time we identified concerns related to air quality, cumulative impacts and environmental justice. A copy of our comments are provided again for your reference.

While the SDEIS was responsive to many of the comments and concerns we raised on the DEIS, the attachment to this letter describes issues and questions that we believe need to be addressed in the FEIS. We have rated the SDEIS "EC-2-Environmental Concerns-Insufficient Information" in accordance with EPA's national rating system, a description of which is attached to this letter. Please contact Timothy Timmermann (617-918-1025) of EPA's Office of Environmental Review with any questions.

Sincerely,

Robert W. Varney
Regional Administrator

attachment

617-918-1010

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Additional Detailed Comments on the SDEIS for the National Emerging Infectious Diseases Laboratories (NEIDL), Boston, Massachusetts

General Comment

It would have been helpful for all readers if new information and analysis provided in response to comments on the DEIS were specifically highlighted in the SDEIS through marginal notes, bolded text or in some other manner. Without such notations, it is more difficult to identify changes that were made to the DEIS. We recommend that the FEIS highlight or otherwise make known the changes between the DEIS, the SDEIS and the FEIS.

Air Quality

Construction Management Plan (SDEIS section 2.2.10)

Given the public health concerns about diesel exhaust, EPA continues to strongly recommend that measures be implemented to reduce fine particle emissions associated with the construction of this facility. The SDEIS indicates that the project will comply with the Massachusetts DEP's Diesel Retrofit Program for Construction Vehicles. Currently, both the Massachusetts Highway Department (MHD) and the Massachusetts Bay Transportation Authority (MBTA) are requiring advanced pollution controls on vehicles used in construction projects. We support this approach.

However, the requirements adopted by the MHD and MBTA do not apply to the NEIDL. EPA recommends that all construction vehicles associated with this project be equipped with diesel oxidation catalysts, and/or use cleaner diesel fuel such as low sulfur diesel (highway diesel fuel) to reduce fine particle emissions, and we request that the FEIS clarify the specific commitment to the use of retrofitted equipment and/or cleaner diesel fuel in the construction of this facility. Please refer to the language of our Construction Impacts comments on the DEIS (as attached for reference on page ADC-4) for the specific recommendations that we support for this project.

Building Design

The additional information provided in response to EPA comments on the use of HEPA filters remains incomplete and should be expanded. The SDEIS states (page 2-10) that the HEPA filters are designed to resist moisture and low level solvents. Therefore, it is assumed that the actual body of the filter as well as the holders are resistant to moisture. There is no mention of pre-filters. The statement that HEPA filters are effective since they are used in respirators is not a complete response or analysis of this issue. For example, HEPA filters are required in asbestos abatement workers' respirators. Unfortunately workers' behavior as well as working conditions frequently defeat the protective feature of the HEPA filtered respirators. Therefore, it is essential to have supervision and outside inspection as well as multiple levels of training and protective devices to ensure that workers are protected and that HEPA respirators do not represent the only significant source of protection.

The SDEIS also states that the HVAC system will provide 100% outdoor air and that the air exchange rate will be between 8-12 air changes per hour so that laboratory agents or chemicals will not build up in concentration. Although the BSL-4 is HEPA filtered, there is no information provided regarding the general laboratory air exhaust (BSL-3 and lower) as to its filtration. This exhaust could be passed through controls to contain chemicals (such as general laboratory solvents) and particulate matter, thereby reducing cumulative exposures to the neighborhood.

Fault-Tree Analysis

A fault-tree analysis was requested in our comments on the DEIS to evaluate health and safety features. The SDEIS (page 2-8) states that a graphical technique, similar to a fault-tree analysis was used, but the SDEIS does not contain this evaluation. We recommend that the graphical analysis of normal lapses in laboratory safety and health procedures coupled with equipment failure and aging of the building be provided for review.

Risk Assessment

The worst case quantitative risk assessment used many assumptions that were not appropriate for a worst case quantitative risk assessment. On this issue, the SDEIS did not provide information EPA requested in comments on the DEIS. We offer the following observations:

- Only inhalation exposure for a person standing at the location of predicted maximum exposure was used; all routes of exposure, such as dermal and ingestion, should be evaluated and population exposure estimates used along with the maximally exposed individual.
- Even though the SDEIS (page 4-4) states that anthrax spores are highly resistant to adverse environmental conditions, there is no discussion of the fate of the spores after the estimated 30 minute release.
- The results section does not provide the health benchmark that was used. Page 4-4 of the SDEIS presents an argument for 9 spores as an infectious dose but it is unclear if this infectious dose is the comparison dose used in the quantitative risk assessment. Because other infectious dose estimates are provided in the published literature, it is recommended that a range of these doses be used to provide comparisons as health benchmarks.

In addition, our review of the revised risk assessment prompts the following two concerns. First, anthrax spores were modeled as a heavy dense gas that produces fractions of spores. Since spore fractions are not possible, wherever there is a fraction, the fraction should be rounded up to one intact spore as an assumption protective of public health. Second, a potential scenario that should be evaluated is the potential of release of one of the insect vectors of the BSL-4 organisms in addition to the escape of an infected traditional laboratory animal.

Appendix 9 of the SDEIS includes a modeling study of an accidental release of anthrax spores. We offer the following comments and observations about that modeling study.

- The use of the ISC-Prime model is appropriate for this exercise. The maximum concentrations resulting from the model are several orders of magnitude higher than those calculated by the SLAB model used in the DEIS.
- The meteorological data used is not specified in the analysis. The report describes the meteorological data as "...a range of weather conditions that may be encountered, based on historical meteorological data for the Boston area." We believe a specific station and timeframe of data should be specified.
- The receptor grid is not specified, so we cannot say whether it is sufficiently dense enough to see small scale variances in the concentration of spores.
- As we mentioned in our comments on the DEIS, the report assumes that 400,000 of the 10 billion anthrax spores will become airborne, but does not explain what will happen to the remaining spores.

Other Comments

- EPA believes that the analysis of alternative locations should be expanded to provide more detail about the benefits and disadvantages of physical isolation of the BSL-4 from the Boston BioSquare Research Park. The purpose of the BU NEIDL is to provide a highly contained and secure laboratory dedicated to studying emerging and re-emerging infectious diseases. The SDEIS states that the proposed project location would enable collaborations among investigators in 11 listed laboratories, at least half of which are located outside of Boston. The Executive Summary states that alternative locations were not analyzed in detail as they were technically infeasible, provide no environmental advantage, or do not meet the purpose and need for the project. The alternative locations with a lower density of human occupation area were dismissed because they were outside Boston and "location in lower density areas would not ...reduce the risk to the public." (SDEIS page 2-43) EPA questions the assumptions in the worst case analysis leading to this conclusion (see discussion later in this attachment) and believes the FEIS should provide additional information to justify why physical isolation for a laboratory studying emerging and re-emerging infectious diseases in humans and other animals is not desirable. We also note NIAID correspondence regarding the Rocky Mountain Laboratory BSL-4 laboratory which lists the advantages and disadvantages of construction of BSL-4 laboratory space in Hamilton, Montana. The letter indicates that the Rocky Mountain Laboratory is located in rural western Montana well removed from population centers thereby reducing "the possibility that an accidental release of a

biosafety level-4 organism would lead to a major public health disaster.”¹ We note that while the SDEIS explains that the BSL-4 lab needs to be in Boston due to needs for collaboration discounts, the majority of the laboratories listed are located outside of Boston and over half (63%) of the new 660 person workforce are expected to live outside of Boston.

- The SDEIS (page 2-44) states that separating the BSL-4 facilities from the other laboratories would result in inefficiencies of capital expenditures and labor. Throughout the safety section, the isolation of the BSL-4 from the general laboratories is underscored. The SDEIS does not evaluate the benefits of physical isolation of the BSL-4 since actual site isolation emphasizes the need for enhanced laboratory safety procedures to personnel entering the BSL-4 area.
- With respect to waste disposal in the BSL-4, the description of disposal of radioactive waste doesn't take into account that the radioactive waste might be from the BSL-4 area; therefore, the process of decontaminating biological BSL-4 waste must be done prior to the procedures for disposal of radioactive waste. We recommend that the NIH and NEIDL incorporate this decontamination into the radioactive material disposal protocols.
- EPA requested an analysis of the cumulative effect of the laboratory along with others in the area, not just a reference to information on file. The cumulative exposure analysis in the SDEIS states that the NEIDL VOC emissions were assumed to be below 2,000 lbs. The cumulative analysis used the estimated emissions of 2,000 lbs for the surrounding laboratories. Please provide the stack testing information or calculations of usage to verify the estimated VOC emissions for the proposed laboratory as well as the operating laboratories.
- Appendix 10 (page 18) states "none of the extremely low air concentrations of particulate matter or VOC compounds. . . would aggravate asthma in persons living near the site." We question the rationale for this conclusion as individuals exhibit a broad range of responses to pollutants. Also, please check footnote 11 since there is no EPA statement on the FAQ page referenced that viral infections are the leading cause of acute asthma attacks.
- The listing of the 21 members of the Biosafety Laboratory Advisory Group requested in our comments on the DEIS was not provided in the SDEIS. We recommend that the FEIS include it.
- Key project documents, including the SDEIS were stated on p.1-17 to be made available for download electronically at www.bostonbiosafety.com. When the website was

¹January 9, 2003 letter from Paul A. Marshall, Freedom of Information Coordinator, NIAID, to James Miller, President, Friends of the Bitterroot.

searched using the wording "Draft Environmental Impact Statement" on April 19 and May 6, the only item that was available was a press release on NIH's decision to provide a supplemental statement. On April 25, the day of the public meeting on the Supplemental Statement, the website was not accessible. No copies of comments on the DEIS were posted on the website or provided to the public and to other commentors. We encourage the NIH to strengthen public outreach efforts by providing access to comments and reports on the project at the project website in a timely manner.

Environmental Justice

The SDEIS notes "some of the communities located in the Environmental Justice study area, including the South End, Roxbury and Dorchester are neighborhoods with high rates of asthma morbidity" (Section 3.4, 3-22). Although the SDEIS notes that modeled impacts from significant emissions sources associated with the project do not exceed the NAAQS, we continue to believe that action is necessary to mitigate for air quality impacts from diesel emissions to at-risk populations in the surrounding communities from construction and operation of the facility. We recommend that construction vehicles associated with this project be equipped with diesel oxidation catalysts, and/or use cleaner diesel fuel such as low sulfur diesel (highway diesel fuel) to reduce fine particle emissions (see construction management plan comments above). EPA recommends these measures to address the potential cumulative health effects from preexisting health conditions (e.g., asthma) and to ensure that an increased or disproportionate burden is not placed on members of the surrounding communities.

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Additional Detailed Comments on DEIS for the National Emerging Infectious Diseases Laboratories (NEIDL), Boston, Massachusetts

Overall, EPA recommends that the Final Environmental Impact Statement (FEIS) provide additional quantitative information about the potential air quality impacts of the proposed laboratories. Without such information, it is difficult to accurately assess the potential air quality impacts of this facility. Our specific comments follow:

Air Quality

General

The Air Quality section of the DEIS accurately characterizes the existing air pollution problem in the Boston area. Boston is in attainment of Massachusetts and national ambient air quality standards for all of the criteria pollutants except ozone. Massachusetts is in non-attainment of the health based standard for ground level ozone. While the predicted impacts of this facility are generally low, the DEIS does not provide adequate quantitative information about the expected air pollution impacts. EPA recommends that the FEIS provide specific information about the expected emissions from the proposed facility. Specifically, in section 3.7.4 the DEIS indicates that the lab will purchase steam from Trigen for its operations. The FEIS should clarify the expected emissions resulting from energy use. The DEIS also mentions that the facility will have three 1750 kW emergency generators, but does not provide any information about emissions from these generators.

Section 4.7 of the DEIS indicates that the types and levels of air emissions would depend on the specific laboratory programs, but also states that emissions of volatile organic compounds (VOC) from this laboratory will be below 2,000 pounds per year, thus avoiding the need for a Limited Plan Approval under Massachusetts regulation. The FEIS should provide more quantitative information about expected VOC emissions to confirm these predicted levels.

Building Design

This section of the DEIS examines steps that the NEIDL will take to filter air from the individual laboratories within the facility. The proposed laboratory will use 2 HEPA filters with an expected 5 year life. This design raises several questions that should be answered in the FEIS:

- What steps will the laboratory take to prevent solvents and moisture from degrading HEPA filters?
- What steps will the NEIDL take to filter bypassed air when HEPA filters are being decontaminated?
- How will the NEIDL ensure that no contaminated air can bypass the HEPA filters?

The FEIS should also provide quantitative information about how the exhaust gases in the disinfection room and the equipment fumigation room of the decontamination facilities will be

captured and disposed of after use. This is important to ensure that the NEIDL has a safe and environmentally sound method for capturing potentially toxic releases.

The safety assessment conducted for the proposed laboratory does not mention whether a fault-tree analysis was performed on the design components of the building.¹ A fault-tree analysis would reveal potential health and safety considerations for the facility. Such an analysis is a more comprehensive way to identify potential points of vulnerability in the building design than risk assessment of a single release.

Risk Assessment – Worst Case Scenario Analysis

Chapter four of the DEIS includes a worst case scenario analysis assessing the impact of a loss of containment systems and a release of anthrax within the facility. The risk assessment is incomplete in that it only examines the inhalation risk, and no other exposure risks, such as risk from touching spores. In addition, it uses just one inhalation dose as the health benchmark to assess the impact of this accidental release on human health. The risk assessment in the FEIS should consider a range of health benchmarks, including that recommended by the Journal of the American Medical Association in 2002 (one spore or less), when assessing the human health impact of such an accidental release.

We also recommend that the FEIS provide more information on the eventual fate of the spores. For example, additional analysis of the deposition of the spores is necessary to identify any potential adverse environmental impacts to the air, water, or to human health. Similarly, the DEIS assumes that if 10 billion spores are released, only 400,000 will become airborne. The basis for this assumption and the predicted fate of all the spores should be explained in the FEIS.

Transportation Related Air Pollution Impacts

The DEIS indicates that the NEIDL will create an additional 660 jobs in the area. The DEIS indicates that, currently, 48 percent of employees in the area arrive in single occupancy vehicles and the rest walk, ride transit, or carpool. In order to maintain this relatively high level of commuters and others using means other than a single occupancy vehicle, we suggest that other commuting alternatives, such as walking, biking, carpooling and the use of transit be actively promoted by the NEIDL. The plan proposed in the DEIS to meet the transportation needs of commuters and others who will come to the facility includes all of the important elements of a strong transportation demand management program, but lacks any specific commitments by the NEIDL beyond membership in the local Transportation Management Association (TMA). The FEIS should present the transportation demand management plan to which the NEIDL has committed through the Commonwealth's Massachusetts Environmental Policy Act (MEPA)

¹ A fault-tree analysis is a risk assessment technique that provides a systematic prediction of the combination of possible occurrences in a system which can result in undesirable outcomes. Each step of the analysis presents a probability for the potential for failure. Conducting such an analysis makes it easier to determine which safety features of a facility should be over engineered in construction.

process. We recommend that the NEIDL consider raising its transit subsidy to the equivalent of thirty dollars per month per participating commuter which could qualify the NEIDL for recognition under the EPA/DOT national "Best Workplaces for Commuters" program.²

²See www.bwc.gov for additional information.

Construction Impacts

Given public health concerns about diesel exhaust, EPA strongly recommends that measures be implemented to reduce fine particle emissions associated with the construction of this facility. Specifically, EPA recommends that construction vehicles associated with this project be equipped with diesel oxidation catalysts to reduce fine particle emissions. Consistent with a number of other construction projects in the region (e.g. projects undertaken by the Massachusetts Highway Department, Massachusetts Bay Transportation Authority, and Connecticut Department of Transportation) we suggest that NEIDL incorporate contract language that reflects the following:

- All Contractor and Sub-contractor diesel powered non-road construction equipment, including generators, with engine horsepower (HP) ratings of 60 HP and above, that are on the project or are assigned to the contract for a period in excess of 30 consecutive calendar days shall be retrofitted with Emission Control Devices and/or use Clean Fuels in order to reduce diesel emissions. In addition, all motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety.
- The reduction of emissions of carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOx), and particulate matter (PM10) will be accomplished by installing Retrofit Emission Control Devices or by using less polluting Clean Fuels.
- The Retrofit Emission Control Devices shall consist of oxidation catalysts, or similar retrofit equipment control technology that (1) is included on the Environmental Protection Agency (EPA) *Verified Retrofit Technology List* and (2) is verified by EPA or certified by the manufacturer to provide a minimum emissions reduction of 20% PM10, 40% CO, and 50% HC.
- The Clean Fuels shall consist of low NOx and PM10 emission diesel fuel that (1) can be used without engine modification, (2) is certified to provide a minimum emissions reduction of 30% PM10 and 10% NOx when compared to No. 2 Diesel Fuel, and (3) is included on the California Air Research Board (CARB) Verification List.
- Construction shall not proceed until the contractor submits a certified list of the non-road diesel powered construction equipment that will be retrofitted with emission control devices or that will use Clean Fuels. The list shall include (1) the equipment number, type, make, and contractor/sub-contractor name; (2) the emission control device make, model and EPA verification number; and/or (3) the type and source of fuel to be used.
- The contractor shall submit monthly summary reports, updating the same information stated above, and include certified copies of the clean fuel delivery slips for the report time period, noting which vehicles received the fuel. The addition or deletion of non-road diesel equipment shall be included on the monthly report.

- The contractor shall establish truck-staging zones for diesel powered vehicles that are waiting to load or unload material at the contract area. Such zones shall be located where the diesel emissions from the trucks will have minimum impact on abutters and the general public. Idling of delivery and/or dump trucks, or other diesel powered equipment shall not be permitted during periods of non-active use, and must comply with State anti-idling laws.

Other Issues

Appendix 6: Summary Report and Risk Assessment

The DEIS carried out a screening-level assessment to examine anthrax spore concentration isopleths under a variety of release conditions. This analysis included dispersion modeling, using EPA's SLAB model (a computer model that simulates the atmospheric dispersion of denser-than-air releases), to examine how a release might disperse into the atmosphere. EPA has approved the SLAB model to assess dense gas releases, but not to assess elevated aerosol releases, as is the case in this analysis. This is in part because SLAB does not account for downwash. Since the release modeled in the DEIS is from an elevated stack, EPA recommends modeling with a more inclusive dispersion model such as ISCST3 or AERMOD. These models can accommodate intervals of less than an hour and can model downwash.

Siting and Cumulative Impact

The DEIS does not provide any quantitative information about the cumulative effect of this facility combined with other facilities proposed for the area. It states that analysis of the cumulative effect of this laboratory, together with other proposed build-outs in the area, is on file with state and local agencies. EPA recommends that the FEIS include an analysis of the cumulative effect of this proposed laboratory with existing facilities and other facilities under consideration for the area. This is important since it is possible that the environmental impact of one laboratory facility may not warrant environmental concern, but when examined in combination with others, could represent part of a larger impact on the surrounding community and local air quality.

EPA also recommends that the FEIS examine a range of alternative locations for this facility in the greater Boston area. The DEIS dismisses alternative sites in the Boston area, stating that it is necessary for the NEIDL to be located close to the Harvard Medical School. However, several of the research facilities that will collaborate with staff at the NEIDL are located in towns outside of Boston, including Waltham, Worcester and Cambridge.

Environmental Justice

We recommend that the environmental justice analysis be amended because 1) the definition of the area of impact considered is too small; 2) cumulative health effects should be more thoroughly analyzed; and 3) there is not enough information to determine the effectiveness of the public participation efforts to date.

The affected area of the project discussed in the DEIS consists of two U.S. census block groups in the South End of Boston that are environmental justice areas as defined by the Massachusetts Environmental Justice Policy, based on minority resident concentration. However, in looking at the map of the proposed site, there are additional areas of Boston to the south and east of the proposed facility, in the neighborhoods of Dorchester and Roxbury, that could also potentially be affected, and these areas have high concentrations of minority and low-income residents.³ EPA recommends expanding the impacted area analyzed in the FEIS to include an area within 1 mile of the proposed facility.

Section 1.4.5 and 1.6.5 of the DEIS notes that many comments concerning environmental justice were raised about the project during the public scoping period, including the comment that the project is proposed for an area that is already overburdened. However, chapter 4 concludes that "the neighborhood is not an area that currently has a disproportionate number of undesirable land uses," yet does not provide data to support this statement. As mentioned above, there is no quantitative information about the cumulative environmental and public health effects of this facility combined with other existing facilities or proposed facilities in the area. Since air quality impacts are the major environmental concern associated with this project, the FEIS should identify other facilities or activities in the area that affect air quality. As noted in comments above, some emissions associated with the proposed project have yet to be precisely quantified. But the VOC emissions expected from the facility and diesel exhaust that will be emitted during construction can aggravate asthma, among other health impacts. Unfortunately, the highest asthma hospitalization rates for children in Boston are found in Roxbury (14.7%) and North Dorchester (12.3%).⁴ EPA recommends that the FEIS include a comprehensive analysis of the cumulative health impacts associated with this project that includes asthma rates and other relevant preexisting health conditions in the affected communities. Mitigation efforts should ensure that these at-risk groups are not exposed to additional environmental health burdens.

The DEIS documents its extensive public participation efforts, noting that environmental justice concerns were raised throughout the scoping process and that the Boston University Medical Center (BUMC) has held a number of community meetings about the proposed project. The FEIS should specify which impacts from the construction and operation of the facility are of

³Note that the EPA does not designate environmental justice areas, but rather identifies areas with high minority and/or low-income populations as potential areas of environmental justice concern since race and income are widely recognized as strong indicators of populations which might bear elevated environmental burdens and/or risks.

⁴The Boston Foundation Indicators Project Report, 2002.

concern to the affected community and what measures are proposed to mitigate them. Without this information we are unable to conclude, as Chapter 4 of the DEIS does, that construction, noise and air quality impacts associated with the project will be negligible. The FEIS should also clarify the Construction Management Plan. Lastly, the DEIS makes reference to a Biosafety Laboratory Advisory Group, but does not identify the members of the group. EPA recommends that this group include appropriate representation from the communities surrounding the facility, including Roxbury and North Dorchester. Representatives from the Greater Boston Environmental Justice Network could help advise representation on this board. We recommend that the FEIS provide a list of the members of this group.