

CHAPTER 2 - COMMENT DOCUMENTS

This chapter is a compilation of all the documents that the U.S. Department of Homeland Security (DHS) received on the National Bio and Agro-Defense Facility Draft Environmental Impact Statement (EIS) during the public comment period. The scanned documents are presented alphabetically. On each document, the comment(s) identified within the document have been numbered and coded by issue category as identified in Table 1.3.1. A corresponding page shows the DHS responses to the identified comments. Section 1.4 describes the organization of this Comment Response Document and discusses the tables provided in Chapter 1 to assist readers in tracking their comments to the respective responses.

Adams, Lisa

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WD0365

From: Lisa Adams [REDACTED]
Sent: Tuesday, August 19, 2008 3:39 PM
To: NBAFProgramManager
Subject: Athens

My husband and I have been searching for people making sense of this project.

1|5.1 | Where can we find a way to support renovation of Plum Island. As a forty plus year resident of a nearby island, we have never experienced any issues. Financially, we'd like to see funds going to reusing and retooling Plum.

Aside, the knee jerk reactionaries seem to ignore the existence of a facility in Atlanta that could also be re-tooled and renovated.

Comment No: 1 Issue Code: 5.1

DHS notes the commentor's opinion of Plum Island and preference that it be reused. The NBAF EIS fully analyzes the Plum Island Site Alternative. The proposed NBAF requires BSL-4 capability to meet mission requirements (DHS and USDA). PIADC does not have BSL-4 laboratory or animal space, and the existing PIADC facilities are inadequate to support a BSL-4 laboratory. Upgrading the existing facilities to allow PIADC to meet the current mission would be more costly than building the NBAF on Plum Island, as discussed in Section 2.4.1 of the NBAF EIS.

Adeney, Marion

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WD0788

From: Marion Adeney [REDACTED]
Sent: Monday, August 25, 2008 4:46 PM
To: NBAFProgramManager
Subject: Comments on NBAF draft EIS

Please address the following comments in the final EIS regarding the possibility of placing the NBAF in Butner, NC:

- 1| 12.3 1.) Potential for contamination of nearby watersheds. The City of Raleigh shares my concern regarding possible contamination of their drinking water. Considering the large numbers of local residents who depend on this water source, this issue deserves a closer look. Two
- 2| 8.3 points are important - 1) the fact that local water treatment regulations (with which the facility will purportedly comply) were not designed to address these types of contaminants, and 2) the many lapses that have already occurred with the local treatment facility, SGWASA Sewage Treatment Facility.
- 3| 18.3 2.) Waste disposal – The Draft Environmental Impact Statement has not sufficiently addressed the potential for air and water contamination, since the methods of waste disposal have not yet been determined.
- 4| 20.3 3.) Human rights issues surrounding the large populations of inmates and mental health patients located near the site should be addressed in the report.
- 5| 21.3 4.) The possibility of transmission via wildlife vectors (notably mosquitos, ticks and deer) in case of an outbreak, and environmental consequences of spraying pesticides in such an event should be better assessed.
- 6| 13.3 5.) The possibility of the presence of rare or endangered species such as those found at nearby Penny's Bend Nature Preserve (including Blue wild indigo and hoary puccoon) should be investigated first hand, and not just depend on reports that may be out of date or incomplete.
- 7| 25.3 6.) There is strong public opposition by the citizens of Durham, Granville and surrounding counties to placing this facility in NC. This should also be addressed in the final report and should be considered in the decision making process.

I add my voice to this opposition.

Sincerely,

Marion Adeney

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Comment No: 1 Issue Code: 12.3

DHS notes the commentor's watershed and water contamination concerns. The NBAF EIS Section 3.13.8, Waste Management describes the process that would be used to control and dispose of liquid wastes and Sections 3.3.7 and 3.7.7 describes standard methods used to prevent and mitigate potential spill and runoff affects.

Comment No: 2 Issue Code: 8.3

DHS notes the commentor's concern about the local water treatment facility. The impact from the proposed operation of the NBAF at the Umstead Research Farm Site on the local sanitary sewage system capacity and infrastructure is discussed in Section 3.3.7.3.4 of the NBAF EIS. The design and operation of the NBAF at the Umstead Research Farm Site would prevent negative impact to the SGWASA Sewage Treatment Facility infrastructure and treatment capabilities. Specifically, as summarized in Section 3.15 of the NBAF EIS, pre-treatment of liquid waste streams would be implemented as necessary to meet treatment facility acceptance criteria, therefore avoiding potential impacts.

Comment No: 3 Issue Code: 18.3

DHS notes the commentor's concerns about waste disposal. Section 3.13.2.2 in Chapter 3 of the DHS EIS for the NBAF addresses the wastes that will be generated by the operation of the facility including liquid wastes that will be discharged to the sanitary sewer (see Table 3.13.2-2), and waste solids that will be sent offsite for further treatment and disposal. All of the wastes that would be generated by the primary carcass and pathological waste disposal methods under consideration (i.e., incineration, alkaline hydrolysis, and rendering) are represented on these tables. Because the method of carcass and pathological waste disposal has not yet been determined, Section 3.4. of the EIS (Air Quality) assumes that the treatment technology with the greatest potential to negatively impact air quality, incineration, will be used to assess the maximum adverse impact. Similarly, because alkaline hydrolysis would have the greatest impact on sanitary sewage capacity, Section 3.3 of the EIS (Infrastructure) assumes that alkaline hydrolysis will be used to assess the maximum adverse impact.

Comment No: 4 Issue Code: 20.3

DHS notes the commentor's concern. DHS is aware of the presence of the health and correctional facilities, described in Section 3.10.7.1 of the NBAF EIS. DHS has held public meetings and conducted outreach efforts to ensure that the surrounding communities, including officials of the health and correctional facilities, are aware of the proposed action. The risks and associated potential effects to human health and safety were evaluated and are presented in Section 3.14. The risks were determined to be low for all site alternatives. As discussed in Section 3.1, there is no potential for high and adverse human health or environmental effects at any of the alternative sites.

Comment No: 5 Issue Code: 21.3

DHS notes the commentor's concerns regarding an accident at the NBAF. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. An analysis of potential consequences of a pathogen (e.g. Rift Valley fever virus) becoming established in native mosquito populations was evaluated in Section 3.8.9 and Section 3.10.9 as well as in Section 3.14 (health and Safety). DHS would have site-specific Standard Operating Procedures (SOP) and response plans in place prior to the initiation of research activities at the proposed NBAF. RVF and FMD SOPs and response plans would likely include strategies that are similar. However, the RVF response plan would also include a mosquito control action plan. The potential consequences of pesticide use would be evaluated during the preparation of a site specific response plan.

Comment No: 6 Issue Code: 13.3

The NBAF EIS cites current records from the North Carolina Natural Heritage Program. This database is continually updated as new rare species occurrences are reported. Surveys of the project area for endangered and rare species and their habitats are described in Section 3.8.7.1.5. No suitable habitat for rare or endangered plant species was found in the project area.

Comment No: 7 Issue Code: 25.3

DHS notes the commentor's opposition to the Umstead Research Farm Site Alternative.

Adeney, Marion

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WD0788

Marion Adeney (PhD Candidate)

[REDACTED]


[REDACTED] NC [REDACTED]

email: [REDACTED]

phone: [REDACTED]
work: [REDACTED]

Adley-Warrick, Lyle

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NCD005

National Bio and Agro-Defense Facility Draft Environmental Impact Statement Comment Form

Personal information is optional as this document is part of the public record and may be reproduced in its entirety in the final National Bio and Agro-Defense Facility Environmental Impact Statement.

Name: Lyle Adley-Warrick

Title: (Mr.)

Organization: NA (Retired)

Address: [Redacted]

City: [Redacted] State: NC Zip Code: [Redacted]

Comments: There's a good reason that the current research facility is on Plum Island. Congress wisely enacted legislation requiring foot & mouth disease research to be conducted offshore. Moving it onshore is not a good idea, & I hope the current Congress has the backbone to say so. Regarding the specific NC location: it's understandable that Homeland Security/USDA might want to tap the human resources of Research Triangle Park & area universities. Also in view of the Aug. 2002 strike on Plum Island by the International Union of Operating Engineers, ~~this~~ this least unionized state in the U.S. must look like a likely source of a compliant labor force. However, the annual discharge of 25-30 million gallons of wastewater will overwhelm the Southern Granville Water & Sewer Authority. The water treated by that entity flows into Falls Lake, which is water supply for Raleigh, political capital and 2nd largest city in the state.

(Continued on back for your convenience)

WHAT SENSE DOES IT MAKE TO LOCATE THIS

Comment No: 1

Issue Code: 5.1

DHS notes the commentor's opposition to the five mainland site alternatives and support for the Plum Island Site Alternative.

Comment No: 2

Issue Code: 2.0

DHS prepared the NBAF EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and CEQ's regulations for implementing NEPA (40 CFR 1500 et seq.). The primary objective of the EIS is to evaluate the environmental impacts of a range of reasonable alternatives for locating, constructing and operating the NBAF and the No Action Alternative not to construct the NBAF. As summarized in Section 3.1 of the NBAF EIS, DHS analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives. A Record of Decision that explains the final decision will be made available no sooner than 30 days after the NBAF Final EIS is published.

Comment No: 3

Issue Code: 8.3

DHS notes the commentor's concern about wastewater treatment. Section 3.3.7.1.4 of the of the NBAF EIS addresses the capacity of the SGWASA to handle NBAF discharges. The NBAF would be designed and operated as necessary to prevent negative impact to SGWASA treatment capabilities resulting from flow rate or potentially harmful wastewater constituents. Specifically, as summarized Section 3.15, pre-treatment of liquid waste streams would be implemented as necessary to meet treatment facility acceptance criteria, therefore avoiding potential impacts.

Adley-Warrick, Lyle

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3 cont. |
8.3

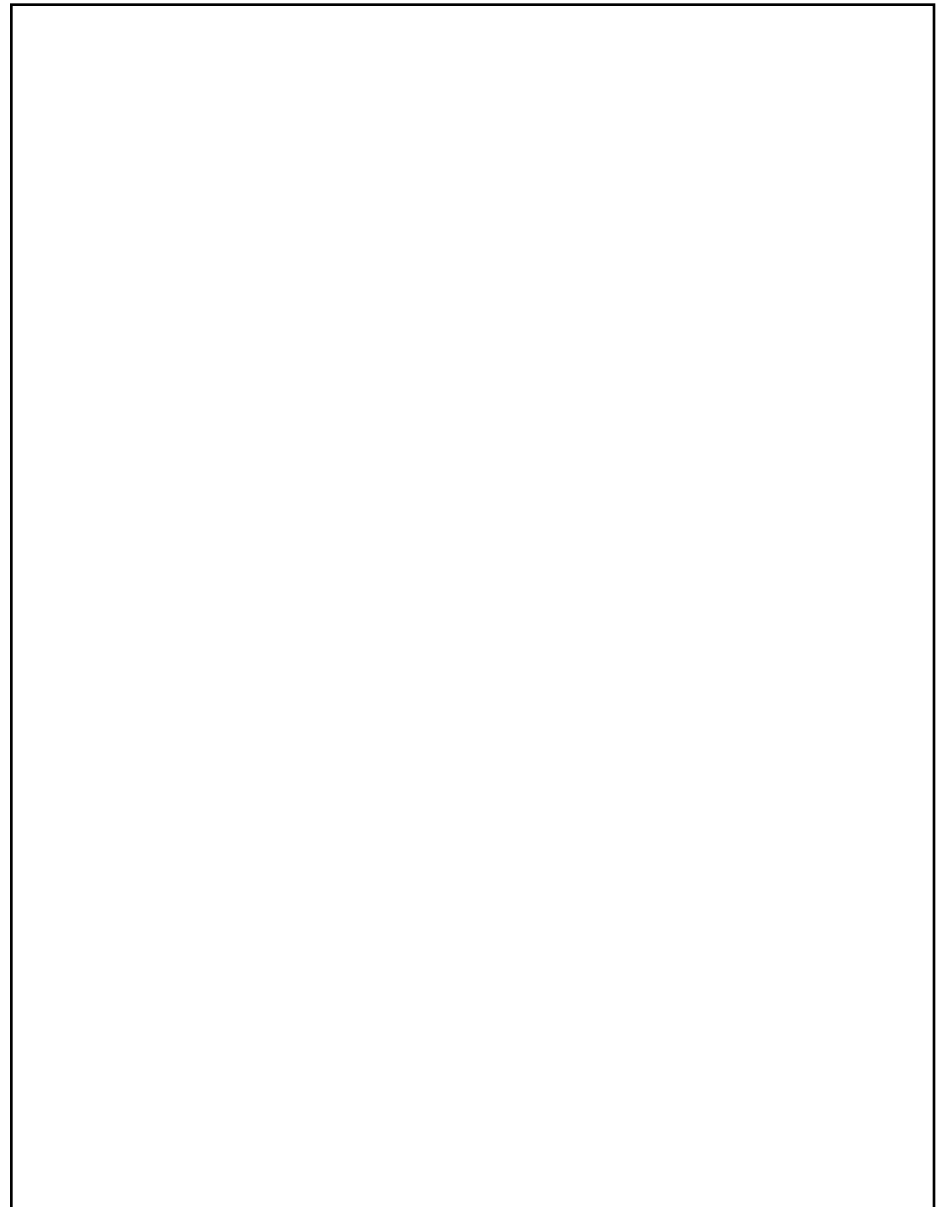
NCD005

FACILITY UPSTREAM FROM RALEIGH?

THANK YOU FOR YOUR COMMENTS

Please return this form to the comment table. It may also be mailed or faxed as follows:

U.S. MAIL	TOLL-FREE FAX
U.S. Department of Homeland Security Science and Technology Directorate James V. Johnson Mail Stop #2100 245 Murray Lane, SW Building 410 Washington, DC 20528	1-866-508-NBAF (6223)



Albert, Karin

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WD0531

From: Karin Albert [REDACTED]
Sent: Sunday, August 24, 2008 9:46 PM
To: NBAFProgramManager
Subject: No To Athens, GA Site

Dear NBAF Managers,

1) 25.2 I wish to voice my strong opposition to Athens being considered as an appropriate site for NBAF. I think the facility you wish to build belongs on an island or into the desert, where problems, if and when they occur, can be contained quickly before spreading to human and livestock habitats.

2) 5.0

3) 12.2 Moreover, Northeast Georgia is in the midst of a very severe drought that endangers our native landscape. Gardeners and their gardens have been suffering hefty water restrictions; many of the plants that make Athens so beautiful in the spring, including our beautiful dogwoods and azaleas, have been weakened and will most likely die. I think it is completely irresponsible to try and attract a facility like NBAF with its heavy water usage when individuals are asked to sacrifice the gardens they have been building and cherishing for 20, 30 years and longer. Please accept my vote saying "No"!!!!

Sincerely,

Karin Albert

Comment No: 1 Issue Code: 25.2

DHS notes the commentor's opposition to the South Milledge Avenue Site Alternative.

Comment No: 2 Issue Code: 5.0

DHS notes the commentor's preference for constructing NBAF at an isolated location. As described in Section 2.4.3 of the NBAF EIS, other potential locations to construct the NBAF were considered during the site selection process but were eliminated based on evaluation by the selection committee. It was suggested during the scoping process that the NBAF be constructed in a remote location such as an island distant from populated areas or in a location that would be inhospitable (e.g., desert or arctic habitat) to escaped animal hosts/vectors; however, the evaluation criteria called for proximity to research programs that could be linked to the NBAF mission and proximity to a technical workforce.

Comment No: 3 Issue Code: 12.2

DHS notes the commentor's drought concerns and DHS acknowledges current regional drought conditions. As described in Section 3.7.3.3.1 of the NBAF EIS, the South Milledge Avenue Site alternative would use approximately 118,000 gallons per day of potable water, an amount that is approximately 0.76% of Athens' current annual average of 15.5 million gallons per day usage. The NBAF annual potable water usage is expected to be approximately equivalent to the amount consumed by 228 residential homes.

Alder, Elizabeth

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WD0074

From: Elizabeth Alder [REDACTED]
Sent: Monday, July 14, 2008 9:14 PM
To: NBAFProgramManager
Subject: National Bio- and Agro-Defense Facility

To Whom it may Concern:

I and my family and friends are absolutely against the National Bio- and Agro-Defense Facility coming to Athens.

They will not receive a welcome here.
e.a.

1|25.2

The i'm Talkaton. Can 30-days of conversation change the world? [Find out now.](#)

Comment No: 1

Issue Code: 25.2

DHS notes the commentor's opposition to the South Milledge Avenue Site Alternative.

Allen, C. Patrick

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PD0101

August 19, 2008

Hello,

1|24.2 My name is Patrick Allen and I am calling in support of the NBAF proposal for South Milledge Avenue in Athens, Georgia.

I am a 25 year resident of [REDACTED] I have read the draft EIS and also toured similar facilities in this community - BSL-3 ag facilities to be specific. I have talked with a number of researchers in our community who both work at Plum Island on occasion and have worked here for years, and I am comfortable with the research....the analysis that's been done on the EIS and am confident that it can be built here safely and securely, and would welcome the facility in our community.

Thank you very much.

Comment No: 1

Issue Code: 24.2

DHS notes the commentor's support for the South Milledge Avenue Site Alternative.

Allen, Cathy

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WD0132

From: Cathy Allen [REDACTED]
Sent: Tuesday, July 29, 2008 8:00 PM
To: NBAFProgramManager
Subject: Proposed Butner,NC location

To Whom It May Concern:

1|25.3 | I realize the saying "not in my backyard" is a cliché, but I believe the citizens of Granville Co. have a right to use it one more time. I don't know who originally invited the government to consider our area as a site, but I'm guessing it was a politician, and it was done without checking with the people they/he/she represent, because I have yet to meet 1 person in favor of this project. I know it has to be somewhere, but I honestly feel the citizens of this county have done more than their fair share when it comes to sponsoring/hosting federal programs and/or institutions. In the 50s hundreds of people lost their family farms so the federal government could build and operate Camp Butner. In a predominately agricultural community (at the time, almost exclusively so) this was no small sacrifice. We are currently home to several (4, I think) federal prison facilities as well as 2 state mental hospitals, which I know you are well aware of. My point: I think we have and continue to donate our fair share to the well being of the government. Like thousands of others, I am concerned about the risk involved with locating this facility so close to the previously mentioned prisons and hospitals as well, but am sure you have heard that one too. Thank you for your time and consideration. Cathy Allen, [REDACTED] citizen and educator

Comment No: 1 Issue Code: 25.3

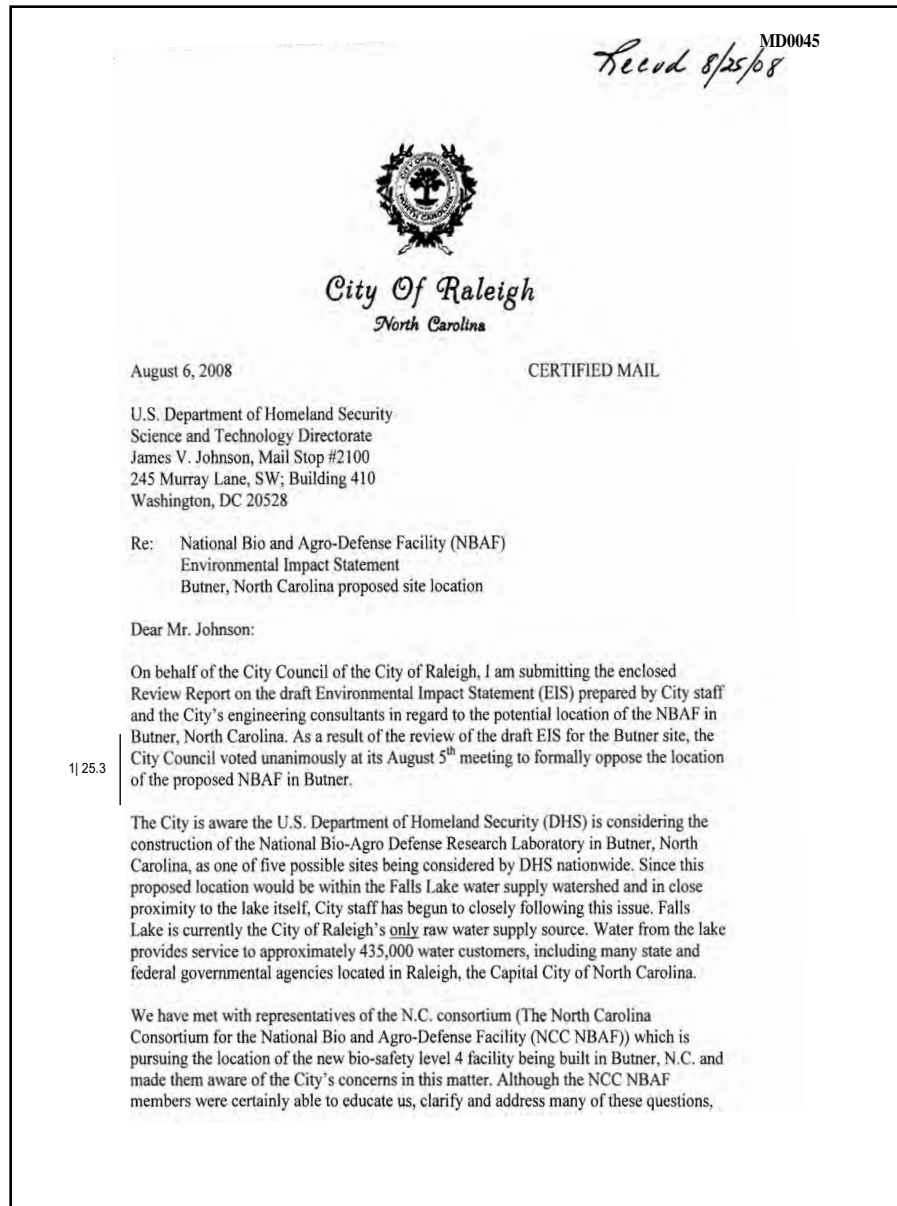
DHS notes the commentor's opposition to the the Umstead Research Farm Site Alternative.

Comment No: 2 Issue Code: 19.3

DHS notes the commentor's concern. DHS is aware of the presence of the health and correctional facilities, described in Section 3.10.7.1 of the NBAF EIS. DHS has held public meetings and conducted outreach efforts to ensure that the surrounding communities, including officials of the health and correctional facilities, are aware of the proposed action. The risks and associated potential effects to human health and safety were evaluated and are presented in Section 3.14. The risks were determined to be low for all site alternatives.

Allen, J. Russel

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Comment No: 1

Issue Code: 25.3

DHS notes the Butner City Council's opposition to the Umstead Research Farm Site Alternative.

Allen, J. Russel

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we understand the responsibility of formally addressing the issues raised by the City about the laboratory and its operation remains with DHS.

2| 12.3 The City's primary concern is that the proposed NBAF site in Butner is located in the Falls Lake water supply watershed. The City has publicly expressed concerns previously about the Butner (SGWASA) WWTP future treatment capacity, that have still to be fully resolved. The North Carolina Division of Water Quality's has recently listed water quality in all of Falls Lake as impaired for chlorophyll A and impaired in the upper part of the lake above NC 50 where Butner is located for turbidity, indicating the lake already has water quality challenges without the potential of what such a project as the NBAF could further compound.

3| 8.3

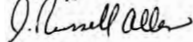
2 cont. | 12.3

All of the City's concerns and comments were sent to your attention at DHS in a letter dated September 19, 2007 (copy attached). Our understanding was that DHS would address these concerns in the preparation of the draft EIS for the Butner site, since the DHS national site selection process is to prepare a federal Environmental Impact Statement for each of the five finalist sites. The City was notified in June, 2008 that DHS has completed the preparation of the draft EIS and would be conducting public meetings and provide a public comment period for draft EIS, which closes August 25, 2008.

The recent review of the draft EIS was to determine whether DHS has properly addressed the City's concerns from last year, plus additional concerns expressed by the City Council in February of 2008. As noted in the Review Report, we do not believe that DHS has adequately responded to many of the City's most critical comments and questions in the draft EIS; therefore the City must now oppose the project being located in Butner.

Please contact me at (919)-890-3070 or Raleigh Public Utilities Director, H. Dale Crisp at (919)-857-4540, if you have any question regarding this information.

Sincerely,



J. Russell Allen
City Manager

Cc: Mayor and City Council
City Attorney
City Clerk
Associate City Attorney – McLawhorn
Public Utilities Director
Asst. Public Utilities Directors – Jackson, Massengill and Waldroup
Water Environmental Coordinator (Interim) – Buchan
Water Plants Superintendent
Arcadis – Hildebran and Sadler
Warwick Arden
Barrett Slanning

Comment No: 2 Issue Code: 12.3

DHS notes the commentor's watershed concern. The NBAF EIS Section 3.13.8 describes the waste management processes that would be used to control and dispose NBAF's liquid and solid waste. Sections 3.3.7 and 3.7.7 describe standard methods used to prevent and mitigate potential spills and runoff affects including cumulative impacts. Any water monitoring and sampling requirements will be determined after the final design phase and during the local, state, and Federal permitting process.

Comment No: 3 Issue Code: 8.3

DHS notes the commentor's concerns regarding the treatment and discharge of NBAF generated wastewater by the South Granville Water and Sewer Authority (SGWASA). The impact from the operation of the NBAF at the Umstead Research Farm Site on the SGWASA wastewater treatment infrastructure is discussed in Section 3.3.7.3.4 of the NBAF EIS. The design and operation of the NBAF at the Umstead Research Farm Site would prevent negative impact to the SGWASA Sewage Treatment Facility infrastructure and treatment capabilities. Specifically, as summarized in Section 3.15 of the NBAF EIS, pre-treatment of liquid waste streams would be implemented as necessary to meet treatment facility acceptance criteria, therefore avoiding potential impacts.

Allen, J. Russel

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**REVIEW of NATIONAL BIO AND AGRO-DEFENSE FACILITY DRAFT EIS
US Department of Homeland Security**

**RALEIGH REVIEW REPORT ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR National
Bio and Agro-Defense Facility (NBAF) Butner N.C. Location**

The U.S. Department of Homeland Security (DHS) has prepared a Draft Environmental Impact Statement (DEIS) for evaluating six alternative sites for the construction and operation of a National Bio and Agro-Defense Facility (NBAF). There is a need to update and expand U.S. facilities to study the range of foreign animal diseases that are potential threats to United States agriculture. The facility being considered would be a biosafety level 3E (BSL-3E), biosafety level 3-Ag (BSL-3Ag) and biosafety level 4 (BSL-4) research facility. It would enable basic and advanced research, diagnostic testing and validation, countermeasure development (i.e., vaccines and antiviral therapies), and diagnostic training for high-consequence livestock diseases with potentially devastating impacts to U.S. agriculture and public health (pg ES-1, ES-5, 1-5 & 6).

DHS anticipates that the NBAF initially would focus BSL-3Ag research on African swine fever, classical swine fever, contagious bovine pleuropneumonia, foot and mouth disease (FMD), Japanese encephalitis, and Rift Valley fever (RVF). BSL-4 research would focus on Hendra and Nipah viruses (pg ES-2, 3-366).

One of the sites under consideration for the NBAF is the Umstead Research Farm Site located in Butner, North Carolina. The site is a 249-acre tract of pasture, grassland, and wooded land located in Granville County. The site is located in the Upper Neuse River Basin and Knap of Reeds Creek is the immediate receiving stream for surface water leaving the site. The surface water eventually flows into Falls Lake Reservoir, the primary water source for the City of Raleigh. It is anticipated that wastewater generated at the facility would be discharged into the South Granville Water and Sewer Authority (SGWASA) sewage treatment plant which discharges into Knap of Reeds Creek and, ultimately, into Falls Lake. (pg 2-22, 3-49, 3-145, 3-359).

The Umstead Research Farm Site is located within the southwest portion of the 4,035-acre North Carolina Department of Agriculture and Consumer Services Umstead Research Farm. It shares a partial northern border with the North Carolina State University Beef Cattle Field Laboratory property; a partial southern border with the North Carolina Department of Juvenile Justice and Delinquency Prevention, C. A. Dillon School; and is adjacent to the Butner Federal Prison property to the southwest (pg 3-322).

An Environmental Impact Statement serves two purposes:

1. It is a decision making document which insures decision makers are aware of the environmental implications of all alternatives before making a choice;
2. It is a disclosure document which documents potential environmental impacts for all interested parties.

The NBAF Draft EIS is somewhat thorough in meeting these two purposes; however, all of the questions raised by the City of Raleigh prior to the preparation of the DEIS are not answered in this document.

Based on a review of the document, the construction of the facility is not likely to have serious environmental impacts; it is the operation that is the cause of concern. The release of infectious pathogens could spread through the air, surface water, waste water, or through animal and human contact creating a very serious human and animal health hazard. The DEIS makes an effort in addressing these concerns; yet, there are many unanswered questions.

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Allen, J. Russel

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**REVIEW of NATIONAL BIO AND AGRO-DEFENSE FACILITY DRAFT EIS
US Department of Homeland Security**

After a review of the DEIS, significant concerns with the adequacy of the Draft EIS are as follows:

4| 19.3 1. From a health and safety perspective, the authors of the document are clear in their opinion that the release of a pathogen is limited; however, they also acknowledge that releases have occurred from other facilities. The DEIS includes an analysis that the preventative and mitigating measures written in health and safety plans (to be written once the facility is sited) would be appropriate to contain the spread of the infectious agent. Whereas the DEIS includes a thorough statistical analysis of the low probability of an accidental or intentional release of infectious pathogens, it is inadequate in addressing how such a release would be mitigated.

3 cont.| 8.3 2. The document does not evaluate whether or not South Granville Water and Sewer Authority (SGWASA) has the capability of adequately establishing standards, evaluating, controlling, and treating the wastewater (hazardous or otherwise) that would be discharged into the SGWASA wastewater treatment plant (WWTP).

3 cont.| 8.3 3. The DEIS does not adequately evaluate the SGWASA WWTP in terms of available capacity versus allocated flow. The DEIS claims that the WWTP is operating at 50 percent capacity. However, in 2004, the facility's National Pollutant Discharge Elimination System (NPDES) permit was scheduled for renewal. At this time, there were questions regarding the total allocation of flow to the facility, and whether or not the flow allocation would be honored. The DEIS should factor in the economic impact of a plant expansion to accommodate the new DHHS Mental Health Facility, anticipated growth in the area, and the status of the previous flow allocations.

2 cont.| 12.3 4. The DEIS does not evaluate the ability of the SGWASA WWTP to meet current nutrient limits as well as the more stringent nutrient limits that have been proposed by DWQ. The Division of Water Quality (DWQ) has declared an intent to regulate the Falls Watershed more stringently for nutrients, per the Draft Neuse Basin Plan currently out for public comment.

5 21.3 5. The document is woefully inadequate in the specifics regarding the protection of the Raleigh water supply. The analysis relies on the low probability of the release of an infectious pathogen due to safety in the design and construction of the facility and competence of those working at the facility. However, the document does not provide a thorough mitigation plan for the possibility of the release of infectious pathogens that might pass through the SGWASA treatment plant.

5 21.3 6. There is very little specific information in the document regarding how intentional or catastrophic releases would be mitigated. In that there is livestock and deer in close proximity to the proposed site, the document raises serious questions as to whether or not such a release could be adequately mitigated. The evaluation

2/26

Comment No: 4 Issue Code: 19.3

DHS notes the commentor's concern regarding a description of mitigation procedures in the event a pathogen release. Section 3.14 investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents. Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. The specific objective of the hazard identification, accident analysis, and risk assessment is to identify the likelihood and consequences from accidents or intentional subversive acts. In addition to identifying the potential for or likelihood of the scenarios leading to adverse consequences, this analysis provides support for the identification of specific engineering and administrative controls to either prevent a pathogen release or mitigate the consequences of such a release. The risk of an accidental release of a pathogen is extremely low. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF at the Umstead Research Farm Site, then site specific protocols, release mitigation procedures and emergency response plans would be developed in coordination with local emergency response agencies that would address the affected human, livestock and wildlife populations residing within the impacted area.

Comment No: 5 Issue Code: 21.3

DHS notes the commentor's concern regarding a description of mitigation procedures in the event a pathogen release. Section 3.14 investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents. The specific objective of the hazard identification, accident analysis, and risk assessment is to identify the likelihood and consequences from accidents or intentional subversive acts. In addition to identifying the potential for or likelihood of the scenarios leading to adverse consequences, this analysis provides support for the identification of specific engineering and administrative controls to either prevent a pathogen release or mitigate the consequences of such a release. The risk of an accidental release of a pathogen is extremely low. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF at the Umstead Research Farm Site, then site specific protocols, release mitigation procedures and emergency response plans would be developed, in coordination with local emergency response agencies that would address the effected human, livestock and wildlife populations residing within the impacted area. An analysis of potential consequences of a pathogen (e.g. Rift Valley fever virus) becoming established in native mosquito populations surrounding the Umstead Research Farm Site is specifically addressed in Section 3.8.9 and Section 3.10.9.5 as well as in Section 3.14.4.5 (Health and Safety). Section 3.10.9.5 discusses the relative suitability of the regional climate of the Umstead Reserarch Farm Site to promote mosquito survival and virus spread based on the extensive discussion contained in Section 3.4.7.1 of the NBAF EIS. As such, the RVF response plan would include a mosquito control action plan, and the potential consequences of pesticide use in mosquito control would be evaluated during the preparation of a site specific response plan.

Allen, J. Russel

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REVIEW of NATIONAL BIO AND AGRO-DEFENSE FACILITY DRAFT EIS
US Department of Homeland Security

acknowledges the presence of wildlife and industrial and residential development in the area of the proposed site. The growth in the area around Butner may change the distribution of potential receptors, but it may also cause terrestrial wildlife to travel greater distances in search of appropriate habitat. This phenomenon may result in a potentially released pathogen traveling further into a greater population area than anticipated in the analysis.

6| 13.3

7. The climate in the area of the proposed facility appears to be well suited for the potential release of RVF. RVF is transmitted by infected mosquitoes which can stay dormant in dry soil and released during periods of high rainfall. With the cycle of drought or dry weather followed by heavy rains, this type of weather pattern could hinder the identification of a potential release for a long period of time. The document does not address climate issues, but does address air quality to some degree.

5 cont.| 21.3

8. The document provides very general information regarding the security system for the facility; however, very little is provided in how it will be made secure from a possible terrorist attack. Based on the information contained in the DEIS, it is very questionable as to the adequacy of the security and fire protection that could be provided by Butner/Granville County.

7| 23.0
8| 15.3

9. The authors acknowledge, using site-specific atmospheric data, there is the possibility that pathogens hypothetically released from the site could travel significant distances downwind. When evaluating this possibility, the evaluation appears to have focused on straight high winds. It is not known whether or not the possibility that hurricane force winds was factored into their evaluation and if this would influence the hypothetical spread of the pathogen. The evaluation of possibility of release does not appear to have factored this sort of high wind, albeit unusual, occurrence into their analysis of the building design. In other words, it appears possible that the hazard from airborne transport could be greater than identified in the document.

10. The DEIS states that the United States does not currently have an effective national action plan or the capability for national response in the event of an RVF outbreak. Response plans would include similar strategies as those for FMD, with the addition of mosquito control via aerial application. The DEIS does not evaluate the water quality impact of widespread aerial spraying for mosquitoes bearing the RVF virus. Large-spread spraying would certainly have an impact on Falls Lake as a drinking water source. Furthermore, the DEIS does not address whether or not mosquito larvae carry RVF disease.

2 cont.| 12.3

11. The upper Falls Lake is 303(d) listed for turbidity. The document does not address the impacts of build-out with respect to stormwater control or secondary and cumulative impacts (SCI). A quantification of the build-out impacts

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DHS notes the commentor's concern regarding wildlife in the vicinity of the Umstead Research Farm Site. The NBAF is surrounded by the Butner Game Lands, Falls Lake State Park, and other large areas of suitable forested habitat that are not likely to be developed as part of the on-going growth in the Butner area. These areas would effectively provide a buffer that would minimize changes in the pattern of wildlife dispersal around the NBAF.

Comment No: 7 Issue Code: 23.0

DHS notes the commentor's concerns regarding the risk of a potential accident or terrorist event. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. As described in Chapter 3 and summarized in Section 2.5 of the NBAF EIS, the impacts of activities during normal operations at any of the six site alternatives would likely be minor. Section 3.14 investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents, Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. Appendix B describes biocontainment lapses and laboratory acquired infections. Laboratory-acquired infections have not been shown to be a threat to the community at large. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF then site specific protocols would be developed, in coordination with local emergency response agencies that would consider the diversity and density of populations residing within the local area. DHS would have site-specific standard operating procedures and response plans in place prior to the initiation of research activities at the proposed NBAF. DHS would offer coordination and training to local medical personnel regarding the effects of pathogens to be studied at the NBAF. Emergency management plans will also include training for local law enforcement, health care, and fire and rescue personnel. Section 3.14 addresses accident scenarios, including external events such as a terrorist attack. A separate Threat and Risk Assessment (designated as For Official Use Only)(TRA) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety. Because of the importance of the NBAF mission and the associated work with potential high-consequence biological pathogens, critical information related to the potential for adverse consequences as a result of intentional acts has been incorporated into the NEPA process. Security would be provided by a series of fencing, security cameras, and protocols. In addition, a dedicated security force would be present on-site at all times. Additional security could be provided via cooperation with local law enforcement agencies.

DHS notes the commentor's concern regarding community oversight of NBAF operations. As described in Section 2.2.2.6 of the NBAF EIS, oversight of NBAF operations will be conducted in part

by the Institutional Biosafety Committee (IBC), which includes community representative participation, and the APHIS Animal Research Policy and Institutional Animal Care and Use Committee.

DHS notes the commentor's question about genetic engineering. DHS confirms that genetic engineering methods (i.e., laboratory-based molecular manipulations to change, add, or delete genes in agricultural pathogens) are standard research tools that would be used at NBAF.

DHS notes the commentor's concern that all possible pathogens to be studied at the NBAF are not listed in the NBAF EIS. The pathogens to be studied at the NBAF as provided in Section 2.2.1 of the NBAF EIS include Foot and Mouth Disease virus, Classical Swine Fever virus, Vesicular Stomatitis virus, Rift Valley Fever virus, Nipah virus, Hendra virus, and African Swine Fever virus. Should the NBAF be directed to study any pathogens not included in the list of pathogens included in the NBAF EIS, DHS and USDA would conduct an evaluation of the new pathogen(s) to determine if the potential challenges and consequences were bounded by the current study. If not, a new risk assessment would be prepared and a separate NEPA evaluation may be required.

Comment No: 8

Issue Code: 15.3

DHS notes the commentor's concern about security and fire protection. A site-specific emergency response plan will be developed and coordinated with the local Emergency Management Plan regarding evacuations and other emergency response measures for all potential emergency events including accidents at the NBAF. Specifically, DHS would offer coordination and training to local medical personnel regarding the effects of pathogens to be studied at the NBAF. Emergency management plans will also include training for local law enforcement, health care, and fire and rescue personnel.

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2 cont. | 12.3 associated with this facility should address the severity of the impact to water quality on this 303(d) impaired water.

7 cont. | 23.0 12. The document lists eight diseases that will potentially be studied at this facility. However, a 2007 Feasibility Study listed ten diseases for study at the laboratory, Newcastle disease and bird flu, which is transmissible to humans. The document needs to address why these two diseases were eliminated from the evaluation.

CITY OF RALEIGH QUESTIONS REGARDING PROPOSED DHS BL4 FACILITY IN BUTNER

The focus of the City of Raleigh's questions relate to the safety of its citizens and how well the water supply and air quality will be protected. The following identifies how questions raised by the City of Raleigh were, or were not, answered in the Draft EIS:

EIS / Final Site Selection Process

1. Who is preparing the Federal EIS for the proposed Butner site and when will it be available for review and comment?

The document is being generated by the Department of Homeland Security in cooperation with the U.S. Department of Agriculture (USDA). Based on the "List of Preparers and Reviewers" located in Chapter 6 and the "NEPA Disclosure Statement" contained in Appendix F, it would appear that the EIS was prepared by a 40 member team of consultants consisting of Dial Cordy and Associates Inc. and Tetra Tech, Inc. as prime consultants supported by Louis Berger Group, Inc. for Socioeconomics and Environmental Justice as well as three individuals for health and safety issues. In addition, there were some 27 document reviewers at DHS, USDA, Sandia National Labs, SAIC Public Outreach, Marstel-Day, LLC, and NBAF Design Partnership (pg. 6-1 – 6-8, Appendix F).

The Notice of Availability for the Draft EIS was posted in the June 27, 2008, *Federal Register* (Volume 73, Number 125 – pages 36540-36542). It has a 60 day comment period of June 27 through August 25, 2008.

2. When will a final decision be made on whether the Butner site is selected and who will make that decision?

No date has been given as to when the final decision regarding the NBAF site will be made; however, based on the "process chart" contained in the Executive Summary, it is estimated that decision is anticipated in the winter of 2008 – 2009 at the earliest. The EIS estimates that construction, which will take approximately 4 years, will begin early 2010 (pg ES-3, 2-4).

Additional information via the NHS web site (http://www.dhs.gov/xres/labs/gc_1187734676776.shtm) notes that the NBAF siting decision will be made as follows:

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- Several factors will affect the decision on whether or not the National Bio and Agro-Defense Facility is built, and where. The environmental impact statement (EIS) itself will not be the sole deciding factor. The decision will be made based on the following factors:
 - Analyses from the environmental impact statement;
 - A combination of environmental, economic, engineering and other technical factors;
 - Applicable federal, state, and local laws and regulatory requirements;
 - Consultation requirements among the federal, state, and local agencies, as well as federally recognized American Indian Nations;
 - Policy considerations; and
 - Public comment.

The Department of Homeland Security Under Secretary for Science and Technology Jay M. Cohen, with other Department officials, will consider the analyses conducted relative to the proposed NBAF and potential sites, along with other programmatic considerations, in making final decisions regarding the NBAF. A Record of Decision (ROD) that explains the final decisions will be made available a minimum of 30 days after the final NBAF EIS is published. The current timeline proposes that the EIS will appear in late fall 2008 (pg 1-7).

Laboratory Testing

1. What biological agents does DHS anticipate working with at the lab that would be of human health concern if released? Will virulent pathogens, animal or human, be included in the biological agents to be evaluated? Will vaccines be available?

The NBAF would initially focus on African swine fever, classical swine fever, contagious bovine pleuropneumonia bacteria, FMD, Japanese encephalitis, and RVF research under BSL-3Ag biocontainment and protocols, as well as Hendra virus and Nipah virus research under BSL-4 biocontainment and protocols. DHS plans to perform research at the NBAF to study how these pathogens enter the animal, what types of cell the pathogen affects, what effects the pathogen has on cells and animals, how newly developed countermeasures help protect the animal against the pathogen and prevent disease, and new detection methodologies (pg 1-2, 3-369).

Those of specific human health concern include FMD, Japanese encephalitis, RVF, Hendra virus and Nipah virus.

- **FMD** is a serious animal pathogen that is highly infectious in all cloven-hoofed livestock and wildlife; however, humans cannot be infected. Though humans are not considered susceptible to infection, FMD can persist in the human upper respiratory tract for up to 48 hours, making humans potential vectors if they are exposed (pg 3-369).
- **RVF** is a serious animal pathogen affecting cattle, sheep, and goats. The virus is transmitted to animals and humans by infected mosquitoes and

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possibly other biting flies. One to three percent of infected humans develop severe hemorrhagic fever and/or encephalitis, which may be fatal (pg 3-370).

- **Japanese encephalitis** has significant similarities to RVF. It is a zoonotic agent that is transmitted by mosquito bite, causing infection in birds, pigs, and humans. Approximately 0.3 percent of infected humans are symptomatic; fatal encephalitis is possible (pg 3-371).
- **Nipah virus** is a serious zoonotic disease (transmitted from animals to humans) that has an extended host range, with natural infections including swine, humans, and, to a minor extent, cats and dogs. Nipah virus can cause highly fatal encephalitis in humans and can be contagious among humans under limited circumstances (pg 3-370).
- **Hendra virus** has significant similarities to Nipah virus, meaning humans as well as animals can become infected (pg 3-371).

The risks associated with the operation of the NBAF, as determined from the detailed hazard and accident analysis, were shown to present a serious potential for adverse consequences in the event of a release of FMD, RVF, and Nipah virus (pg ES-12). Therefore, the accidental or intentional (criminal or terrorist activity) release of one or more of these three pathogens was used in the consequence analysis (pg 3-366).

Yes, virulent pathogens, animal and human, will be included in the biological agents to be evaluated at the proposed facility. The aforementioned representative pathogens selected for the detailed hazards and accident analysis were FMD, RVF, and Nipah virus.

Vaccines are available for Japanese encephalitis. There is no* vaccine for RFV (pg 3-371). There are currently no vaccines available for either Nipah virus or Hendra virus (pg 1-2). The NBAF would allow researchers to study foreign animal diseases (FAD) and zoonotic diseases for basic and advanced research, provide training for FAD diagnosticians improving diagnostic tests, and develop effective vaccines and other countermeasures such as antiviral therapies (pg 1-1).

(*According to the World Health Organization factsheet on RVF (revised September 2007), a vaccine has been developed for human use; however it is not licensed and is not commercially available. It has been used experimentally to protect veterinary and laboratory personnel at high risk of exposure to RVF).

2. Will the lab use genetic engineering?

The DEIS does not include this information.

3. What quantities of infectious biological agents will be used and/or stored at the facility?

The DEIS does not specify the quantities of biological agents used and/or stored at the facility. However, it does specifically state that "NBAF activities, operations, and research would be performed solely for scientific research and biodefense purposes and would be conducted in accordance with treaty obligations of the *Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their*

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Destruction, as ratified by the U.S. Senate on March 26, 1995. This treaty prohibits the development, production, and stockpiling of biological weapons (pg 1-2)."

4. Will research involve laboratory animals and/or plants inoculated with disease agents? In what quantities?

Yes, research at the NBAF will include the study of pathogen entry into affected animals, cells affected by the pathogens, effects of pathogens on cells and animals and how newly developed countermeasures help animals in developing protection against infection (pg 1-2).

Based on 70 percent utilization of the design maximum, projected research demands resulted in a facility design that could house approximately 200 to 300 animals at any given time, including cattle, swine, and sheep. BSL-2 insectary spaces are also included in the design for the purpose of breeding, rearing, manipulating and holding/incubating arthropod vectors. A separate space will also be established at BSL-3Ag and BSL-4 levels for infected arthropods used in virus transmission studies (pg 2-1/2).

Appendix E (pg E-18) provides a table of the anticipated animal species and sizes likely to be housed in NBAF.

5. Will the list be available to the general public?

DHS and USDA have proposed to initially study eight disease agents: African swine fever virus, classical swine fever virus, contagious bovine pleuropneumonia bacteria, FMD, Japanese encephalitis virus, RVF, Hendra virus and Nipah virus. These disease agents are subject to change as threats and risk assessments change. As new diseases emerge that threaten U.S. livestock the list of high-consequence disease studied could change (pg ES-2, 1-2). The DEIS does not state whether or not a list of these or additional agents would be available to the public after the facility is built.

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6. How is a level 4 lab facility different from a level 3 lab facility?

BSL-3E: Refers to the protective enhancements commensurate with the risk assessment of the pathogens and requirements for agricultural protection (pg 1-2).

BSL-3Ag: Refers to research involving large agricultural animals and foreign and emerging pathogens that may cause serious consequences in livestock but that are not harmful to humans because protective measures are available (pg 1-2).

BSL-4: Facilities appropriate for handling exotic pathogens that pose a high risk of life-threatening disease in animals and humans through the aerosol route and for which there is no known vaccine or therapy. BSL-4 facilities have complex, specialized ventilation requirements and waste management systems to prevent release of viable agents to the environment (pg 1-2).

7. Is this level 4 lab facility different than other level 4 lab facilities, and if so, how does it differ?

In 2007, the General Accountability Office conducted a survey of U.S. academic, biotechnology, and pharmaceutical laboratories in 46 states and identified 15 planned, under construction, or capable

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BSL-4 laboratories. No other large animal or livestock BSL-4 laboratories exist in the United States. U.S. researchers currently use similar facilities in Winnipeg, Canada and Geelong, Australia (pg ES-1, 2-27).

Engineering Controls

1. What does DHS envision as the worst case scenario and what engineering controls will be in place to ensure such an event will not occur?

The worst case scenario in the operation of the NBAF would be the adverse consequences associated with the release of pathogens, either accidentally or intentionally (pg 3-364). The pathogens considered in the NBAF risk assessment were FMD, RVF, and Nipah virus (pg 3-364).

The diseases caused by these three viruses sufficiently cover the spectrum of outcomes that would likely occur if any of the pathogens to be studied at the NBAF were to escape to the surrounding areas and infect animal and human populations. An FMD outbreak has the capacity to wreck havoc on the livestock economy. The RVF and Nipah viruses pose potential threats to both livestock and human populations. A release of pathogens could potentially affect wildlife populations. Projected losses to the U.S. livestock industry from an outbreak of FMD on a scale similar to the United Kingdom outbreak of 2001, could create losses in the range of \$10 to \$30+ billion. The Rift Valley Fever Working Group developed a bioterrorist RVF release scenario that estimated 114 human deaths and the economic impact on the United States to exceed \$50 billion due to losses in livestock and related industries (pg 3-305/306).

The hazards assessment for the NBAF also provided support for the identification of specific engineering and administrative controls to either prevent a pathogen release or mitigate the consequences of such a release (pg 3-362).

According to the Biosafety in Microbiological and Biomedical Laboratories (BMBL) "the fundamental principles of biosafety are containment and risk assessment. The fundamentals of containment include the microbiological practices, safety equipment, and facility safeguards that protect laboratory workers, the environment, and the public from exposure to infectious microorganisms that are handled and stored in the laboratory. Risk assessment is the process that enables the appropriate selection of microbiological practices, safety equipment, and facility safeguards that can prevent laboratory-associated infections (LAI)." (pg 2-3).

One of the primary design goals central to the flexibility of the proposed main laboratory building was the "hotel concept." This concept was used to evaluate and determine the number of laboratories and animal rooms required to run the NBAF in a safe, cost-effective, and efficient manner. This hotel concept assumes that all rooms are designed and shared on an equal basis and that each room provides the primary biocontainment requirements to ensure isolation between each other. Primary biocontainment measures for the proposed NBAF would include, but are not limited to, high-efficiency particulate air (HEPA) filtration for air exhaust and air intake systems, biosafety cabinets (BSCs), pressurized biosafety suits, and decontamination stations. Safety and biocontainment protocols would

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be addressed in facility-specific standard operating procedures (SOPs) that would be developed according to USDA guidelines prior to commissioning and operation of the NBAF.

Another primary design goal was to provide an adequate level of redundant safety and biocontainment that would be integrated into every component of the building. All laboratory areas, animal areas, support areas, backup computer servers, and engineering systems would have 100 percent back-up and redundancy such as:

- Each critical zone would be designed as a sealed "box-within-a-box" with airlocks at all points of access.
- The hardened structural systems would mitigate progressive collapse to help withstand seismic and/or other external threats.
- The electrical systems would have dual feeds and would be designed with fully integrated battery and diesel-electric power back-up systems for redundancy within each system. A power outage or component breakdown would instantly transfer function to a back-up system.
- BSL-3Ag and BSL-4 laboratories would have two HEPA filters installed in series.
- Heating and ventilation systems would be fully contained within each zone, have seamless access to back-up power, and have redundant components built into every critical system.
- Concentric-ring security zones would ensure that nothing enters or exits the building without passing multiple points of physical and electronic screening.

The facility functions serving our national security concerns would have multiple layers of security designed into every primary use and engineering support system. This level of safety, redundancy, and security would help to provide instant and automatic safeguards to the staff and the community it serves to support the overarching design goal of providing a safe work environment (pg 2-4).

Appendix E contains a more detailed conceptual description of the BSL-4 Laboratory and Animal Biocontainment Facilities (pg E-17 to 30); while pages E-30 through E-46 describe Safety Barriers and Equipment including biocontainment and ventilation systems.

With respect to the Butner site, the primary hazard of the NBAF operations is the pathogen and consequences of its release. There are very few accident scenarios that would result in animal or human disease, the exceptions being an over-pressure event resulting in loss of containment and a facility fire, both of which present a moderate risk rank for distances close to the release. Because of the potential for easy spread of the disease via infected livestock, wildlife, and vectors, the overall site risk is designated as moderate (pg 2-47, 3-488).

At the Butner site, the normalized air and ground concentration values represent the potential for significant concentrations in the air and on the ground for the more significant accidents such as over-pressure, seismic, and fire events. Numerous species of mammals, birds, reptiles, and insects (mosquitoes and ticks) inhabit the area around the proposed site. Mammals include white tail deer, grey fox, and coyote. The wildlife and livestock in the vicinity of the site are prime candidates for

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acquiring or transmitting the FMD and RVF and to some extent the Nipah virus when pigs are present. While the FMD, RVF, and Nipah virus each have different characteristics related to transmission and viability, the unmitigated concentrations near the facility are potentially significant (pg 3-481).

The location of the proposed NBAF site in North Carolina provides a significant opportunity for the spread of viruses via vectors and infected wildlife. It is considered likely that deer could act to spread disease over long distances. In addition, common vectors such as mosquitoes can be transported long distances. The potential for acquiring and spreading diseases from the FMD, RVF, and Nipah virus is also illustrated by consideration of the livestock in the vicinity of the proposed Butner site. The site being considered shares a partial northern border with the North Carolina State University Beef Cattle Field Laboratory property and the counties surrounding the site contain significant numbers of livestock potentially exposed in the event of a release. Also, the atmospheric modeling indicates that down-wind transport is a credible scenario given a sufficiently large release of pathogens (pg 3-322, 3-481 & 483).

2. What engineering controls will be in place to address contaminated waste treatment and disposal of experimental animal or plant remains? (e.g. pretreatment, incinerator, etc.)

The *NBAF Conceptual Design and Feasibility Study* (NDP 2007a) described the programmatic, technical, and non-site-specific requirements for the NBAF to determine the feasibility of the project and to prepare a preliminary conceptual design. The Draft EIS was prepared based on that study as well as other sources (pg 2-1). The draft cost and engineering analysis is being conducted in parallel with the NBAF EIS (pg 1-7). The design would be finalized and a detailed description of construction activities would be prepared once a site has been selected (pg 2-4).

Protection of the public from adverse consequences is primarily driven by engineered controls such as HEPA filtration and pressure controls that prevent large quantities of pathogens from escaping the facility in the event of an operational upset condition. In a similar fashion, engineered controls such as BSCs and negative pressure boundaries are essential for protecting the involved and non-involved workers within the laboratories (pg 3-372).

Operation of the proposed NBAF could generate sanitary solid, medical, hazardous, and radiological wastes, as well as sanitary and industrial wastewater. These wastes would leave the facility by being discharged through the sanitary sewer system or they would be collected and disposed at regulated, permitted solid, hazardous, or radiological waste management facilities. All of the potentially infectious waste generated at the facility would undergo pretreatment before it is discharged to the sanitary sewer system. Liquid biowaste from BSL-3E, BSL-3Ag, and BSL-4 areas would undergo redundant on-site treatment before being discharged to the sanitary sewer (3-344).

Treatment of Animal Carcasses/Pathological Waste: A dedicated carcass disposal system would be utilized for BSL-3Ag and BSL-4 areas. The USDA ARS 242.1 Facilities Design Standards contains a requirement to provide for incineration of animal carcasses infected with BSL-3Ag agents and BSL-4 agents or to have an alternative solution presented for consideration based on a comparative analysis. Incinerators are being phased out due to permitting and maintenance issues, and

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replacement technologies are currently being investigated. Incineration is still, however, considered the most effective method for disposal of infected carcasses at many universities and research establishments (pg 2-6).

It is estimated that 375 to 1,200 euthanized animal carcasses could be generated annually at the facility (pg 3-350). The proposed pathological waste disposal method for the NBAF has not been determined at this time and would be an influencing factor on facility air emissions. Three disposal methods are being considered:

1. Incineration fueled by natural gas and fitted with afterburner chambers that reduce intermediate gases and particulate matter;
2. Alkaline hydrolysis using sodium hydroxide or potassium hydroxide to convert biological material into a sterile aqueous solution;
3. Or, rendering by converting the carcasses into carcass meal (solids), melted fat, and water using a steam-jacketed pressure vessel.

If one of the action alternatives is selected and the disposal method is determined, a state authorization would be required prior to construction and operation of an appropriate alternative (pg. 3-57).

Wastewater: Wastewater generated by the NBAF would be discharged to the sanitary sewer. The wastewater stream would consist of treated biological and infectious waste (i.e., wastewater that is sterilized in biowaste cookers), other laboratory waste liquids (e.g., waste from BSL-2 laboratories), liquid effluents from carcass disposal, conventional sanitary sewer waste (discharges from sinks, toilets, and showers in non-BSL-3 and BSL-4 areas), and cooling tower blowdown.

It is estimated that the Butner site would generate 35,000 gallons per day (gpd) of sterilized wastewater, 16,100 gpd of non-sterilized wastewater, and 18,500 gpd of cooling tower blowdown. It is estimated that a total wastewater generation of approximately 69,600 gpd and an estimated daily maximum of 150,000 gpd (pg 3-345) would be required.

Biowaste would enter a dedicated treatment system that involves thermal treatment (sterilization) followed by subsequent decontamination. Various technologies are being considered for the liquid effluent decontamination system, including steam sterilization technologies, reverse polymerization systems, chemical systems, heat and chemical systems, irradiation systems, etc. Steam sterilization is recommended by the NBAF design team because it is a proven methodology offered by multiple vendors. Decontamination system tanks would be located in a dedicated space below the floor level. Biowaste would be gravity drained to the liquid waste decontamination system. Biowaste piping would be double walled in areas that are not accessible for inspection (pg 3-345).

Waste Solids: It is estimated that the NBAF could generate 15,000 cubic yards per year of municipal (i.e., sanitary) solid waste and 592.6 cubic yards per year of special medical waste (pg 3-356).

Waste solids would leave the area after either passing through an autoclave or undergoing gas decontamination or chemical disinfection. Materials that are not heat sensitive and not very large would be autoclaved, while gas and chemical disinfection would be used on heat-sensitive materials

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and objects too large to be autoclaved. Waste that has been treated may be discarded as sanitary solid waste unless laboratory procedures dictate that particular waste material cannot be disposed of in the sanitary solid waste stream or if the waste material is hazardous, by EPA definitions. Waste would be transported to an off-site licensed, permitted municipal solid, medical, or hazardous waste incinerator as appropriate (pg 3-346). The vast majority of wastes, other than sanitary sewer wastes, generated at the NBAF requiring off-site disposal would be industrial solid waste (pg 3-352).

Radiological Waste: Experiments/procedures that would generate radiological waste are not currently part of the planned mission of the NBAF (pg 3-352).

Medical, Hazardous, and Industrial Solid Waste: Disposal of medical, hazardous, and industrial solid waste is governed by federal and state regulations promulgated under the Resource Conservation and Recovery Act (RCRA). In addition, treatment of industrial solid waste in non-hazardous waste incinerators (i.e., municipal waste combustors) is governed by federal and state regulations (pg 3-352).

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3. Will management of the facility include provision for an oversight group including representatives from local municipalities?

The DEIS does not include information regarding representation from local municipalities.

However, oversight will be provided by the following agencies and organizations.

Institutional Biosafety Committee (IBC). The use of any biological agent requires the review and approval of the IBC of USDA/APHIS. IBC membership, responsibilities, and roles are defined in the NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH 2002). The focus of the IBC is adherence to well-established biological safety practices that protect the researchers and the surrounding community. The IBC is vested with the authority to approve the use of a biological agent, deny approval, or take action to stop work. Possession of and any work involving select agents, whether they are BSL-3 or BSL-4 agents, requires registration of the facility by APHIS and/or the CDC. The registration process includes identity of the agent(s), the location of use and storage of the agent(s), and a detailed description of laboratory containment June 2008 2-8 *NBAF Draft Environmental Impact Statement* provisions and security measures. IBC approval of SOPs is required, and the laboratories would be inspected by the CDC at least once over a given 3-year period.

The IBC is comprised of committee members with overlapping and interdisciplinary expertise, including microbiologists, infectious disease specialists, safety experts, and community representatives. Notifications for Use of Biological Agents received by the IBC are critically reviewed by experts focusing on the safe use of the biological agent(s) at the appropriate biosafety level.

APHIS Animal Research Policy and Institutional Animal Care and Use Committee. The APHIS Institutional Animal Care and Use Committee (IACUC) reviews all protocols and proposals for research, testing, and education that involve the use of vertebrate animals to be certain that care and use of animals is in compliance with the *Animal Welfare Act* as amended (7 USC, 2131-2156), *Guide for Care and Use of Laboratory Animals* (Institute for Laboratory Animal Research 1996), guidelines

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DHS notes the commentor's question regarding whether oversight of NBAF operations would include representatives from local municipalities. Consideration of mechanisms for the public to serve in an advisory or oversight capacity of NBAF operations is not within the scope of the NBAF EIS, which presents the need for and evaluates the environmental impacts of the alternatives for constructing and operating the NBAF. However, should a decision be made to build NBAF and the site selected, DHS would begin transition and operational planning which would include consideration of policies and procedures for public participation, education, and also public advisory initiatives. After DHS determines the viability and nature of such a public advisory and oversight function, appropriate roles and responsibilities would be defined.

DHS also notes the commentor's question regarding public access to air quality and wastewater monitoring data. Consideration of provisions for public access to environmental monitoring data is not within the scope of the NBAF EIS. As stated throughout the NBAF EIS, waste treatment and other processes of concern have not been finalized and, as such, conservative assumptions were used to ensure the probable maximum effects were evaluated for each affected resource area. Any further detailed discussion of wastewater and air pollution control and associated monitoring technologies would be highly speculative and will not be known until the NBAF design is finalized. Ultimately, monitoring requirements will be at least partially dependent on the environmental permitting and associated reporting requirements imposed by federal, state, and local agencies. Of course, all environmental monitoring data would be subject to public review in accordance with the public record access provisions administered by the appropriate regulatory agencies.

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of the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC), and state and local regulations. The IACUC is comprised of at least five members with mandatory membership of a doctor of veterinary medicine with training or experience in laboratory animal science and medicine and who has program authority and responsibility for activities involving animals at the NBAF. The IACUC may approve, require proposal modifications, or withhold approval of all research and testing protocols related to the care and use of vertebrate animals. In approving protocols, the IACUC ensures that

- Animal pain, distress, and functional or sensory impairment are minimized.
- All survival surgery is performed using aseptic procedures.
- Adequate veterinary care is planned for and provided.
- The type and number of animals are appropriate and necessary as an essential part of the protocol.
- Anesthetics, analgesics, tranquilizers, and euthanasia procedures are used appropriately when necessary.

The NBAF animal facilities are subject to inspections and site visits from the National Institutes of Health (NIH), USDA, and AAALAC. AAALAC is a private, nonprofit organization that promotes the humane treatment of animals in science through a voluntary accreditation program. Inspections can include review of IACUC protocols, minutes of all IACUC meetings, all animal use, and care records. Access to animal housing facilities and laboratories is required for inspectors.

4. What type of engineering controls will be on the ventilation systems (e.g. scrubber, HEPA filters, etc.)?

BSL-3Ag and BSL-4 laboratories would have two HEPA filters instated in series. Heating and ventilation systems would be fully contained within each zone, have seamless access to back-up power, and have redundant components built into every critical system (pg 2-3).

Appendix E (pg E-37 to 43) provide descriptions of the conceptual ventilation system proposed for the NBAF.

5. Will there be solid or liquid waste streams leaving the facility? If so, what level of pretreatment will be provided, and will the Town of Butner WWTP be required to provide additional treatment?

Operation of the proposed NBAF would generate wastewater; waste solids; and medical, hazardous, and industrial solid waste; therefore, there will be both solid and liquid waste streams leaving the facility. For a discussion of the level of pretreatment to these wastes see the answer to "What engineering controls will be in place to address contaminated waste treatment and disposal of experimental animal or plant remains? (e.g. pretreatment, incinerator, etc., above).

The proposed NBAF would discharge sanitary wastewater to the SGWASA sewer system. Sanitary wastewater from the NBAF would have to meet SGWASA acceptance criteria for industrial wastewater (pg 3-51). Discharge of medical waste must be specifically authorized by the SGWASA Director in a wastewater discharge permit (pg 3-359). Because the SGWASA treatment plant is

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currently operating at less than 50 percent of capacity, the additional estimated wastewater discharge from the NBAF of 69,600 gpd average, or 150,000 gpd maximum, would use less than 6 percent of available operating capacity on a maximum discharge day.

6. Will there be a dedicated water treatment plant and waste treatment facility on site?

No, potable water will be supplied by the SGWASA. SGWASA utilizes surface water from Lake Holt as the potable water source for Granville County and is permitted for the use of 7.5 mgd of raw water from the lake [Lake Butner]. The water is treated in the SGWASA water treatment plant using flocculation, filtration, sedimentation, and clarification followed by chlorination and storage in a 1,000,000 gallon elevated tank. The 7.5 mgd capacity water treatment plant operates at approximately half capacity and SGWASA has indicated that they can meet the NBAF needs. The NBAF designers recommended that municipal water service be brought to the site via redundant or looped feeds such that maximum water demand may be satisfied with loss of one feed line (pg 3-48 and 50).

In regard to the onsite waste treatment facility, please see the responses to questions 2 and 5 under Engineering Controls.

7. What measures will be in place to protect the City of Raleigh drinking water supply?

The Butner site is located in the Upper Neuse River Basin and Knap of Reeds Creek is the immediate receiving stream for surface water leaving the site. The surface water eventually flows into Falls Lake Reservoir, the primary water source for the City of Raleigh. It is anticipated that wastewater generated at the facility would be discharged into the SGWASA sewage treatment plant that discharges into Knap of Reeds Creek. The Knap of Reeds Creek is the receiving waters from the wastewater treatment plant and the creek is currently not meeting all of North Carolina Department of Environment and Natural Resources (NCDENR) Division of Water Quality (DWQ) designated uses. The NBAF's contribution to the wastewater treatment facility's capacity is not anticipated to be substantial; however, the effluent volume and constituents would represent an increase in the region of influence (ROI) cumulative wastewater effluents entering the Knap of Reeds Creek (pg 2-22, 3-49, 3-145, 3-359).

8. How will the measures in place protect the City of Raleigh drinking water supply during usual operations?

The daily wastewater effluent from the NBAF would be quantified by volume and constituents to ensure that the receiving wastewater treatment plant can integrate the additional load requirements of the NBAF without adversely affecting the capacity or permitted effluent stipulations of the treatment plant (pg 3-149).

The NBAF design features, such as backflow preventers, and uniform plumbing code requirements would minimize the potential for microbes within the NBAF from migrating back through the water supply piping to the public. Also, none of the effluent water from the wastewater plant will contribute directly to any potable water source.

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Water exiting through the sink drains would be combined and diluted by sanitary waste in the sewer system and would undergo a series of treatment steps at the wastewater facility. These treatment steps consist of aeration, secondary clarification, disinfection, dechlorination (for environmental discharges), water reuse system, effluent holding ponds, and sludge drying beds. **It is anticipated that there would be minimal effects from water-borne transmission.** Because of the potential hazards associated with this pathway, this scenario was specifically evaluated in the hazards and accident analysis.

Safety controls specifically relied upon to mitigate or prevent the inadvertent release of viable pathogens to the environment include the following:

- BSL-3 and BSL-4 laboratory floor drains and piping are segregated and isolated from sanitary waste streams;
- Vents for the drains are segregated and isolated and are provided separate HEPA filtration;
- Autoclave(s), chemical, and gas disinfection methods;
- Secondary biocontainment; and
- Facility structure, which is a safety feature designed to current conceptual design requirements.

In addition to equipment and facility systems that serve as primary and secondary barriers to the release of infectious biological materials, administrative controls serve an important support function. Multiple administrative controls and quality assurance measures are also implemented to minimize the potential for degradation of physical barriers and/or to minimize the amounts of infectious biohazardous materials that become involved in an accident with potential exposure to the workers or release to the environment and the public through the water transmission route. Administrative controls include, but are not limited to, the following programs: Quality Assurance, Qualification and Training, Fire Protection, Engineering and Maintenance, Biological Safety, and Conduct of Operations (DOE 2006; CCPS 1992; Bahr 1997; Greenberg 1991) (pg 387/388).

Based on a conceptual site drawing, the NBAF can be positioned without directly impacting surface water features (pg 3-149).

As previously discussed, the Knap of Reeds Creek is the receiving waters from the City of Butner's wastewater treatment, and Knap of Reeds Creek is currently not meeting all NC DENR DWQ designated uses. The NBAF's contribution to the wastewater treatment facility's capacity is not anticipated to be substantial; however, the effluent volume and constituents would represent an increase in the ROI cumulative wastewater effluents entering the Knap of Reeds Creek (pg 3-359).

Spill Prevention Countermeasure and Control plans (SPCCs), as required in the *Oil Pollution Prevention Act*, are developed to address direct and indirect effects from potential spill sources and associated appurtenances. The proposed NBAF would have an anticipated 50,000-gallon on-site fuel storage capability, exceeding the cumulative volume of the on-site fuel storage June 2008 3-121 *NBAF Draft Environmental Impact Statement* threshold, thereby triggering the SPCC plan requirement. The SPCC thresholds are aboveground petroleum storage in excess of 1,320 gallons or

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underground petroleum storage in excess of 42,000 gallons and, in the event of a release, the potential for navigable water impacts. The SPCC plan would fully address the elements described in the Oil Pollution Prevention regulations (40 CFR part 112). Although site-specific attributes for each action alternative would be explicitly addressed, the SPCC plan would generally include the following information (EPA 2008e):

- Facility Information
 - On-site responsible individual(s) and contacts
 - Emergency response contacts
 - Petroleum types and volumes
 - Storage features and locations
 - Containment infrastructure
 - Immediate spill response equipment
 - BMP preventatives
- Security Data
 - Fencing
 - Lighting
 - Access
- Inspection Records
- Training Records

The SPCC document would include reference tables delineating petroleum inventories, tank sizes, locations, and a mobile sources inventory including location and function. Site map(s) would include tank locations, volumes, petroleum types, emergency access routes, spill kit locations, mobile source locations, and source-specific drainage patterns/receiving waters. The SPCC plan would be certified by a professional engineer and executed by the executive manager of the facility (pg 3-122).

9. How will the measure in place protect the City of Raleigh drinking water supply during upsets or catastrophes?

Three scenarios were assessed that could result in the contamination of the NBAF in the plumbing and wastewater system:

1. A flood initiates, or is associated with, a spill of infectious material that results in infectious liquid entering a floor drain;
2. A viable culture of infectious agent is discharged into a sink without adequate decontamination; and
3. A spill of infectious material enters a facility floor or sink drain.

Each of these scenarios results in the same circumstance: infectious material discharged to the plumbing that has the potential to contaminate the wastewater system.

Infectious biohazardous material in the NBAF plumbing would be rendered inert through addition of chemical decontamination agents using standard operating procedures for decontamination of laboratory effluent. Proper safety controls would be used before any plumbing work would be

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conducted. Workers entering the BSL-3 or BSL-4 laboratory areas would be required to wear appropriate PPE and would be briefed on potential hazards. Potentially contaminated plumbing would represent one of many scenarios where craft workers would be required to conduct work on potentially contaminated systems. Workers that access sewer lines external to the NBAF are accustomed to treating sewer effluent as potentially infectious just as any wastewater from any building. If infectious material from the NBAF were to reach the wastewater system, it would present a potential risk to laboratory workers or the operation of the treatment plant system and also poses a risk to potential release to the environment. However, chemical disinfectants are used in drain lines and all waste originating in the BSL-4, BSL-3(E), and BSL-3Ag areas of the facility will undergo thermal treatment before it is discharged to the sanitary sewer. A lab-scale volume of infectious material, even the amount postulated in the unmitigated release scenario, is a very small fraction of the thousands of gallons of fluid that flows through the plant and resides in treatment plant basins (pg 388/389).

Sampling and Monitoring

1. At what frequency will liquid effluent from the facility be sampled and analyzed?

The pretreatment requirements applicable to the biological and infectious wastes that would be discharged to the sanitary sewer are derived from Biosafety in Microbiological and Biomedical Laboratories (BMBL) (CDC and NIH 2007). These requirements involve taking appropriate precautions that are based on risk assessment, and they become more stringent as biosafety levels increase. The BMBL also requires documentation of the decontamination of liquid wastes generated in BSL-4 areas, and the decontamination process must be validated physically and biologically. Biological validation must be performed at least annually (CDC and NIH 2007). Additional requirements may need to be met to conform to the acceptance criteria of the individual publicly owned treatment works (POTWs) handling NBAF wastewater discharges (pg 3-345).

2. Will the samples be grab or composite?

The DEIS does not include this information.

3. Who will perform the analysis?

The DEIS does not include this information.

4. Will analysis include testing for DNA markers that would identify all infectious materials stored or being used in the facility?

The DEIS does not include this information.

5. Will monitoring include composite air samples similar to those currently being performed by DHS at other locations?

The DEIS does not include information on air quality monitoring at this site.

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DHS notes the commentor's air quality concerns. The potential effects of NBAF operations on air quality are discussed in Section 3.4 of the NBAF EIS. Section 3.4.1 describes the methodology used in assessing potential air quality consequences at each site. Carcass/pathological waste disposal, including incineration, is discussed in Section 3.13. Section 3.14 describes the hazard and accident analysis including site specific consequences. Conservative assumptions were used to ensure the probable maximum effects were evaluated. The final design will ensure that the NBAF does not significantly affect the region's ability to meet air quality standards. Should a decision be made to build NBAF and following site selection and final design, a complete emission inventory would be developed and refined modeling performed as necessary in accordance with state-specific air quality permitting requirements. DHS would be required to comply with permit-established monitoring requirements. As such, consideration and discussion of specific stack/vent testing or continuous emissions monitoring requirements that might be necessary would be highly speculative at this time.

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The design of the NBAF includes several engineering controls to prevent the escape of gaseous and particulate air emissions due to laboratory operations. These engineering controls include:

- High efficiency-particulate air (HEPA) filtration for air exhaust and air intake systems
- Design of critical zones as a sealed "box-within-a-box" with interlocks at all points of access
- Hardened structural systems to mitigate, and progressive collapse that would help withstand seismic and/or other external threats.

Boilers, back-up generators, and incinerators (if used) would be designed and constructed using state-of-the-art technologies that would assure compliance with air permit requirements. Additionally, regulatory oversight would assure compliance. Through these measures, air impacts would be minimized (Table 3.15.1).

6. Will air monitoring include DNA analysis that will allow identification of all infectious materials housed in the facility?

The DEIS does not include this information.

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7. How near to real time do you anticipate surrounding stakeholders (municipal governments, public health officials, voting public) will have access to results of monitoring activities?

The DEIS does not include this information.

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Emergency Response

1. If a list of infectious biological agents used at this facility will not be available to the general public, how will DHS work with local public health professionals to ensure they and the medical community are prepared to deal with a worst case scenario?

Practical and effective protocols for emergency situations must be established. These protocols must include plans for medical emergencies, facility malfunctions, fires, animals escaping within the laboratory, and other potential emergencies. Training in emergency response procedures must be provided to emergency response personnel and other responsible staff according to institutional policies. Many of the training and testing requirements are to maintain certification and licensure to operate a laboratory, which generally take up to a year beyond the construction phase to complete. The BMBL is the primary guidance source to ensure a safe and effective testing and training program for successful state-of-the-art biocontainment laboratory facilities (pg 2-5).

2. What biological contamination incidents have occurred at other BL4 facilities and how was the exposure handled?

Even with the improved engineering and design of high-biocontainment biological laboratories, accidents due to human error or maintenance failures that could cause releases can occur. Recent events include:

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1. The infection of workers with *Brucella sp.* At one of Texas A&M University's BSL-3 laboratories in 2006;
2. A 1-hr power outage in 2007 at the new BSL-4 facility of the CDC in Atlanta, before work with pathogens begun, wherein the main and back-up power systems both failed and the negative air-pressure system – a key element of pathogen biocontainment – shut down; and,
3. In 2007, a release of FMD to livestock on farms near the Pirbright high-biocontainment laboratory in the United Kingdom due to a damaged and leaking drainage system at the facility (GAO 2007) (pg 3-364).

Appendix B discusses biocontainment lapses and laboratory acquired infections and includes several data tables detailing recent incidents and subsequent actions taken.

3. What type of employee training is required?

Prior to conducting research with highly infectious agents, a laboratory facility and staff undergo many preoperational testing and training activities. One of the first pre-operational test and training events to occur is the commissioning of a laboratory. The commissioning process for building construction projects is a quality control process to document, test, and verify that building systems meet the facility owner's functional, operational, and performance requirements. This process is essential in the construction of today's biocontainment laboratories due to the requirements for life safety and reliable environmental control and monitoring. To take full advantage of the commissioning process, the research and maintenance staff would actively participate with the commissioning team to learn how the variety of engineering systems and controls maintain the integrity of the biocontainment laboratory. The research and maintenance staff would draw upon this information to establish the SOPs for each staffing group (pg 2-5).

Once the construction of the facility and commissioning is complete, the maintenance staff would establish the operations and maintenance SOPs based on the data compiled from the construction documents, commissioning process, regulatory agencies, and their own experience with simulated system failure scenarios. These scenarios would occur during the commissioning process to help prepare the maintenance and research staff to respond in a timely and effective manner should the failure occur during normal operation of the facility. One example of biocontainment laboratory operation and maintenance procedures that would be required is daily inspections of essential containment and life support systems that must be completed and documented before laboratory work is initiated to ensure that the laboratory is operating according to established parameters. Preparation of the operation and maintenance SOPs with the appropriate training typically occurs over a 3- to 6-month period after construction is completed (pg 2-5).

Once operational, the proposed NBAF would employ approximately 250 to 350 people. In addition to the scientific and administrative staff of the laboratory, the proposed NBAF would employ technicians, veterinary staff, building engineers, and security personnel. All laboratory staff would receive thorough pre-operational training, as well as ongoing training, in the handling of hazardous infectious agents, understanding biocontainment functions of standard and special practices for each biosafety

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level, and understanding biocontainment equipment and laboratory characteristics. Laboratory staff would be supervised by trained and experienced scientists. The NBAF safety and biosafety staff would review and approve of proposed protocols and SOPs for the laboratory prior to use. Laboratory staff working in the proposed NBAF would use the standards and procedures recommended for all institutions engaged in biological research (pg 2-6).

4. What are the law enforcement, fire, HAZMAT, security, and emergency response capacities of the Town of Butner?

Butner Public Safety is the police authority for the proposed site in North Carolina. Butner Public Safety has 43 sworn officers. They serve all citizens within the territorial jurisdiction including those living in group quarters (e.g., correctional facilities and psychiatric hospitals). Butner Public Safety's director reports to the chief deputy secretary of the Department of Crime Control and Public Safety. All officers must be certified in Basic Law Enforcement. They must also have extensive knowledge of the policies, procedures, and jurisdictional authority, and special populations of the 25 different federal, state, and local agencies that have facilities in Butner. Butner Public Safety has 25 police vehicles. The study area is also served by the Granville County Sheriff's Department, the Durham County Police Department and Sheriff's Office, the Wake County Sheriff's Office, and the Vance County Sheriff's Office (pg 3-287 & 288).

Granville County Fire Services provides fire protection to the study area with 14 incorporated fire departments, such as Butner Public Safety, which provides fire fighting, fire training, and fire-prevention programs to the proposed site in Butner. All law enforcement officers must also be trained as Level I Firefighters. To maintain safety, Butner Public Safety has two class-A pumpers, one 95-foot ladder truck, one 2,000-gallon tanker, and one skid unit brush truck. Butner Public Safety officers regularly conduct drills and inspections in Butner's institutions, industries, and local businesses. Butner Public Safety is responsible for providing secure transport of patients from N. C. Memorial Hospital to institutions in Butner. Approximately 400 transports are conducted annually (pg 3-288).

The response time for fire and emergency services to the NBAF would range from 7 to 10 minutes, based on a response distance of approximately 5.0 miles at an average response speed of 40 mph (pg 3-324).

11| 19.3 **5. Will infectious biological agents be used at the facility for which ordinary HAZMAT equipment is inadequate to control or to protect responders?**

The DEIS does not include this information.

6. How will power failures be handled?

Duke Energy, operating in the Carolinas Service Area, is the electrical utility responsible for providing power to the Umstead Research Farm Site. Duke Energy would supply three-phase electricity to the site through two independent electrical substations. Two existing, redundant, medium-voltage services with multiple feeders would be provided by Duke energy. Each independent substation would have sufficient capacity for 13.5 mW of dedicated power to the NBAF. Power from the two

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DHS notes the commentor's concern about adequate personal protective equipment (PPE) for first responders. Specifically, DHS would offer coordination and training to local medical personnel regarding the effects of pathogens to be studied at the NBAF. First responder training would include use of the appropriate equipment and protective gear. Emergency management plans would also include training for local law enforcement, health care, and fire and rescue personnel. Section 2.2.2 of the NBAF EIS provides information on the general types of standard operating procedures (SOP) that will be prepared subsequent to the NBAF Record of Decision call for the design, construction, and operations of the NBAF. SOPs will include site specific operation and maintenance SOPs, release mitigation procedures and emergency response plans. The emergency response plans would be developed in coordination with local emergency response agencies and would include training to ensure adequate protection of responders.

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primary substations would be routed through two new and separate aboveground or underground lines that converge at a new electrical substation located on or adjacent to the site. The electrical systems would have dual feeds and would be designed with fully integrated battery and diesel-electric power back-up systems for redundancy within each system. A power outage or component breakdown would instantly transfer function to a back-up system (pg 2-3, 3-48 & 50).

7. How will an accidental release be handled (both air borne and water borne)?

To prevent a widespread outbreak among wildlife and domestic livestock, an accidental release of the FMD virus would require an immediate and intensive coordinated response by federal, state, and local agencies. Given the need for rapid response, DHS would have publicly accepted, site-specific Standard Operating Procedures (SOPs) and response plans in place prior to the initiation of research activities at the facility. DHS would develop its SOPs and response plans in coordination with the public, local government, and state and federal agencies. All interested parties would have the opportunity to review the draft response plan and provide comments that DHS would consider in formulating the final document. During this process, DHS would coordinate closely with the public, state wildlife agencies, the Animal and Plant Health Inspection Service (APHIS), the National Park Service (NPS), and the USFWS. In the event of an accidental release, DHS would have the advantage of on-site diagnostic capabilities; rapid detection; site-specific SOPs and response plans; and pre-coordinated, rapid-response capabilities by local, state, and federal agencies.

In the event of an accidental release, response measures could potentially include a wide range of actions depending on site conditions, characteristics of local wildlife populations, and the nature of the outbreak. Existing applicable response plans that are already in place include the APHIS FMD response plan (USDA 2007) and the NPS Interim FMD Response Plan (NPS 2001). These existing response plans provide insight into some of the measures that could potentially be employed to protect both livestock and wildlife in the event of an accidental release from the proposed NBAF. The APHIS FMD response plan calls for the establishment of various zones of response to control and eradicate an FMD outbreak. These zones include an infected zone, a buffer surveillance zone around the infected zone, a control zone, and an outer surveillance zone. The initial infected zone includes the infected locations and an area extending outward for a distance of at least 6.2 miles beyond the perimeter of the infected site. However, the boundaries of the infected zone may be modified as surveillance results become available and other factors become better defined. The buffer surveillance zone surrounds the infected zone. The buffer surveillance zone has no minimum size, and it may initially include the entire state or states that have infected premises or known contact premises. The surveillance zone separates the buffer surveillance zone from the FMD-free zone. The surveillance zone encompasses an area that is at least 6.2 miles from the outer boundary of the buffer surveillance zone (pg 3-214/215).

In contrast to FMD, the United States does not currently have an effective national action plan or the capability for national response in the event of an RVF outbreak (Britch et al. 2007). In order to prevent a widespread outbreak among wildlife and domestic livestock, an accidental release of vector-borne RVF would require an immediate and intensive coordinated response by federal, state, and local agencies. Given the need for rapid response, DHS would have publicly accepted, site-

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specific SOPs and response plans in place prior to the initiation of research activities at the proposed NBAF. RVF SOPs and response plans would likely include strategies that are similar to those described above for FMD. However, the RVF response plan would also include a mosquito control action plan. The mosquito control action plan would most likely include the aerial application of insecticides within the infection zone. Due to the ability of RVF to persist in infected mosquito eggs, repeated aerial spraying may be required over an extended time period (pg 3-218).

8. How will transportation safety and security of infectious biological agents and other hazardous materials be addressed? Major highways to and from the site cross the headwaters of Falls Lake, Raleigh's water supply.

Regulations on transportation of biological agents are aimed at ensuring that the public and the workers in the transportation chain are protected from exposure to any agent that might be in the package. Protection is achieved through 1) the requirements for rigorous packaging that will withstand rough handling and contain all liquid material within the package without leakage to the outside, 2) appropriate labeling of the package with the biohazard symbol and other labels to alert the workers in the transportation chain to the hazardous contents of the package, 3) documentation of the hazardous contents of the package should such information be necessary in an emergency situation, and 4) training of workers in the transportation chain to familiarize the with the hazardous contents so as to be able to respond to emergency situations. Regulations that apply to transportation of samples include Department of Transportation (DOT) 49 CFR Parts 171-178, Hazardous Materials Regulations, Public Health Service 42 CFR Part 72, Interstate Transportation of Etiologic Agents. Samples transported to the NBAF would be provided by commercial suppliers, research collaborators, or other parties seeking sample identification. Samples may contain either previously identified or unidentified microorganisms or strains. As a requirement of transport, in accordance with federal regulations, the package originator must identify the contents and provide the required shipping documentation detailing the package contents to the transporter and receiver (pg 2-7).

Samples would be shipped to the NBAF by commercial package delivery services in accordance with International Air Transport Association packing instructions. All samples would be packaged and shipped in accordance with DOT and CDC requirements for transporting potentially biohazardous samples. Samples containing select agents would be handled in accordance with USDA and CDC select agent rules. Samples shipped from the NBAF would follow a similar procedure for receiving samples (pg 2-7&8).

Security

1. What is the strategic mission of this proposed facility?

The United States (U.S.) Department of Homeland Security (DHS) and the U.S. Department of Agriculture (USDA) have identified a capability gap in the nation's coordinated biodefense strategy that cannot be met at any existing U.S. research facility. To provide the needed capability and to comply with Homeland Security Presidential Directive 9 (HSPD-9), "Defense of United States Agriculture and Food," DHS proposes to build an integrated research, development, test, and

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evaluation facility called the National Bio and Agro-Defense Facility (NBAF). The NBAF would allow researchers to study foreign animal diseases (FAD) and zoonotic diseases (transmitted from animals to humans) for basic and advanced research, provide training for FAD diagnosticians improving diagnostic test, and develop effective vaccines and other countermeasures such as antiviral therapies. The NBAF would meet the capabilities required in HSPD-9 by providing a domestic, modern, integrated high-containment facility (including BSL-3 and BSL-4) for an estimated 250 to 350 scientists and support staff to safely and effectively address the accidental or intentional introduction into the U.S. of animal diseases of high consequence. The NBAF research mission would be based on current pathogen and disease risk assessments (pg 1-1&2).

2. What types of site security measures will be in place?

The site will layout will include the following support buildings:

- Entry Guard House – controls site access; and
- Central Receiving Facility – controls all deliveries to the site for transfer to the laboratory facilities (all external vehicle deliveries would be transferred to the NBAF internal vehicles for delivery. (pg 2-2).

All laboratory areas, animal areas, support areas, back-up computer servers, and engineering systems would have 100% back-up and redundancy such as:

- Concentric-ring security zones would ensure that nothing enters or exits the building without passing multiple points of physical and electronic screening (pg 2-3).

Additionally, it is noted that "internal threats are addressed through mitigation measures that involve administrative controls such as:

- Pre-employment screening or Personnel Security Programs; Contractor screening and monitoring;
- Perimeter security measures;
- Behavior observation programs;
- Inventory reduction; and
- Emergency response planning.

External threats most often involve mitigation measures that rely on engineered controls such as:

- Inventory isolation and control;
- Relocation of storage;
- Obscuring storage;
- Improvements to physical perimeter systems (e.g. double fence line, lighting, motion sensor alarms, video cameras, Jersey barriers, etc.); and
- Preplanning/coordination with local emergency response agencies (pg 3-433).

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3. What security measures are currently used at other DHS facilities (level 3 and level 4) and what is the track record of performance?
The DEIS does not include this information.

4. Will access to the site be protected and monitored 24 hours a day, seven days a week?
The DEIS does not include this information.

5. How does DHS plan to secure the site from a terrorist attack?
External threats most often involve mitigation measures that rely on engineered controls such as:

- Inventory isolation and control;
- Relocation of storage;
- Obscuring storage;
- Improvements to physical perimeter systems (e.g. double fence line, lighting, motion sensor alarms, video cameras, Jersey barriers, etc.); and
- Preplanning/coordination with local emergency response agencies (pg 3-433).

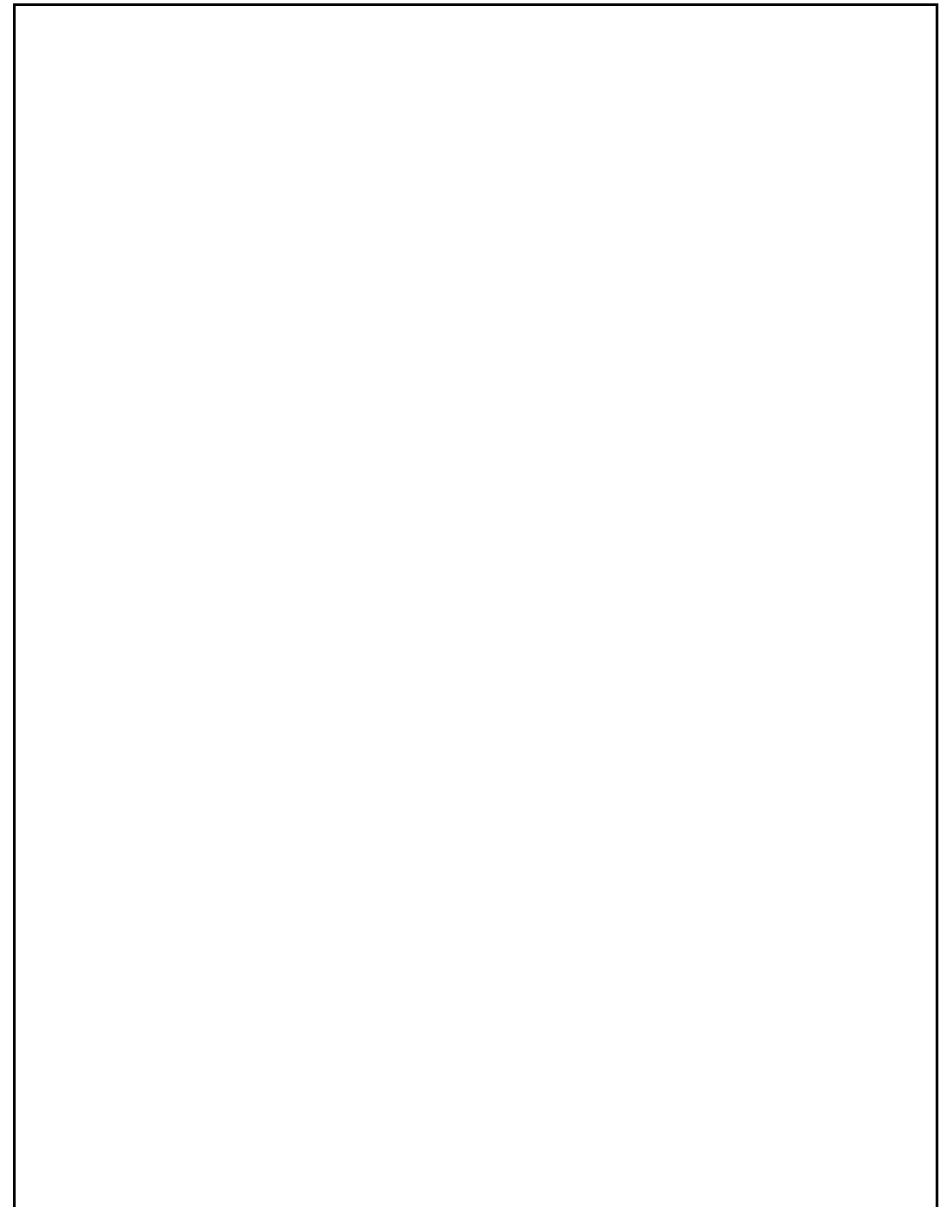
ADDITIONAL QUESTIONS POSED BY THE CITY TO THE DEPARTMENT OF HOMELAND SECURITY REGARDING THE DEIS:

1. Respond to the City's questions about the facility that were submitted in September.
See prior answers.

2. Explain plans for keeping sediment runoff from the facility out of Falls Lake, Raleigh's source for drinking water.
Construction of the NBAF at the Umstead Research Farm Site would result in the direct disturbance of previously undeveloped areas. During the construction phase, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared and notice given as required by NCDENR (NCDENR 2008). Construction of the proposed NBAF would have no indirect adverse effect on local surface waters or downstream facilities/resources with appropriate Best Management Practices (BMPs) to minimize potential construction runoff. Information regarding design and mitigation measures have been previously described and would be applicable to the Umstead Research Farm Site (pg 4-148).

3. Respond to safety questions posed by the Granville County Board of Commissioners.
These questions are not available for review. Therefore, it cannot be determined if they are answered in the DEIS.

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4. Provide information about oversight of the facility.

Institutional Biosafety Committee (IBC). The use of any biological agent requires the review and approval of the IBC of USDA/APHIS. IBC membership, responsibilities, and roles are defined in the NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH 2002). The focus of the IBC is adherence to well-established biological safety practices that protect the researchers and the surrounding community. The IBC is vested with the authority to approve the use of a biological agent, deny approval, or take action to stop work. Possession of and any work involving select agents, whether they are BSL-3 or BSL-4 agents, requires registration of the facility by APHIS and/or the CDC. The registration process includes identity of the agent(s), the location of use and storage of the agent(s), and a detailed description of laboratory containment June 2008 2-8 NBAF Draft Environmental Impact Statement provisions and security measures. IBC approval of SOPs is required, and the laboratories would be inspected by the CDC at least once over a given 3-year period.

The IBC is comprised of committee members with overlapping and interdisciplinary expertise, including microbiologists, infectious disease specialists, safety experts, and community representatives. Notifications for Use of Biological Agents received by the IBC are critically reviewed by experts focusing on the safe use of the biological agent(s) at the appropriate biosafety level.

APHIS Animal Research Policy and Institutional Animal Care and Use Committee. The APHIS Institutional Animal Care and Use Committee (IACUC) reviews all protocols and proposals for research, testing, and education that involve the use of vertebrate animals to be certain that care and use of animals is in compliance with the *Animal Welfare Act* as amended (7 USC, 2131-2156), *Guide for Care and Use of Laboratory Animals* (Institute for Laboratory Animal Research 1996), guidelines of the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC), and state and local regulations. The IACUC is comprised of at least five members with mandatory membership of a doctor of veterinary medicine with training or experience in laboratory animal science and medicine and who has program authority and responsibility for activities involving animals at the NBAF. The IACUC may approve, require proposal modifications, or withhold approval of all research and testing protocols related to the care and use of vertebrate animals. In approving protocols, the IACUC ensures that:

- Animal pain, distress, and functional or sensory impairment are minimized.
- All survival surgery is performed using aseptic procedures.
- Adequate veterinary care is planned for and provided.
- The type and number of animals are appropriate and necessary as an essential part of the protocol.
- Anesthetics, analgesics, tranquilizers, and euthanasia procedures are used appropriately when necessary.

The NBAF animal facilities are subject to inspections and site visits from the National Institutes of Health (NIH), USDA, and AAALAC. AAALAC is a private, nonprofit organization that promotes the humane treatment of animals in science through a voluntary accreditation program. Inspections can

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**REVIEW of NATIONAL BIO AND AGRO-DEFENSE FACILITY DRAFT EIS
US Department of Homeland Security**

include review of IACUC protocols, minutes of all IACUC meetings, all animal use, and care records. Access to animal housing facilities and laboratories is required for inspectors.

5. Consider alternate sites in North Carolina for the facility.

The DEIS describes the following process for initially identifying, evaluating, and subsequently selecting the alternative sites that were evaluated in the document.

DHS issued a Public Notice soliciting Expressions of Interest (EOIs) for potential sites for the NBAF in the Federal Business Opportunities on January 17, 2006, and the Federal Register on January 19, 2006. DHS received 29 EOIs by the March 31, 2006, due date stated in the Public Notices Soliciting EOIs. DHS conducted an initial evaluation of the 29 EOIs, using the four evaluation criteria set forth in the Public Notice Soliciting EOIs. These evaluation criteria were developed by an interagency working group to ensure that NBAF would meet the purpose and need of the project and the interdependent needs of DHS and USDA to adequately protect the nation against biological threats to animal agriculture. The four evaluation criteria were:

1. Proximity to Research Capabilities
2. Proximity to Workforce
3. Acquisition/Construction/Operations
4. Community Acceptance

DHS developed and implemented a rigorous process for the first round evaluation of the 29 EOIs received against DHS's evaluation criteria and associated sub-criteria. Selected those sites that had sufficient qualifications with regard to the evaluation criteria (and would therefore be further considered in a second round of evaluations) and eliminated some sites for further consideration due to weaknesses and/or deficiencies with respect to the following evaluation criteria:

1. Lack of proximity to existing BSL-3 or BSL-4 research programs that could be linked to NBAF mission requirements.
2. Difficulty in demonstrating ability to attract world-class researchers and scientists or skilled technical workforce with necessary experience.
3. Insufficient infrastructure, utilities, or other siting difficulties.
5. Insufficient community support for siting of the NBAF.

After DHS's First Round evaluation of the 29 EOIs, 18 potential sites for the proposed NBAF from 12 consortia remained under consideration in a second round of the site selection process. In December 2006, DHS sent Additional Information Requests to the consortia proposing the 18 remaining sites. Upon receipt of this additional information from the consortia, a federal team consisting of USDA and DHS employees conducted site visits to all the remaining sites. The DHS selection authority determined that five sites met the evaluation criteria and DHS references and would therefore be advanced as reasonable alternatives to be studied in the Environmental Impact Statement (EIS) (pg 2-10 and 2-11).

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MD0045



City Of Raleigh
North Carolina

September 19, 2007

CERTIFIED MAIL

U.S. Department of Homeland Security
Science and Technology Directorate
James V. Johnson, Mail Stop #2100
245 Murray Lane, SW; Building 410
Washington, DC 20528

Re: National Bio and Agro-Defense Facility (NBAF)
Environmental Impact Statement
Butner, North Carolina proposed site location

Dear Mr. Johnson:

On behalf of the City Council of the City of Raleigh, I am submitting the attached list of questions and comments unanimously approved by the City Council on September 18th at their regular meeting regarding the potential location of the NBAF in Butner, North Carolina.

The City was recently informed the U.S. Department of Homeland Security (DHS) is considering the construction of the National Bio-Agro Defense Research Laboratory in Butner, North Carolina, as one of five possible sites being considered by DHS nationwide. Since this proposed location would be within the Falls Lake water supply watershed and in close proximity to the lake itself, City staff has begun to closely following this issue. Falls Lake is currently the City of Raleigh's only raw water supply source. Water from the lake provides service to approximately 350,000 water customers, including many state and federal governmental agencies located in Raleigh, the Capital City of North Carolina.

We have met with representatives of the N.C. consortium (The North Carolina Consortium for the National Bio and Agro-Defense Facility (NCC NBAF)) which is pursuing the location of the new bio-safety level 4 facility being built in Butner, N.C. and presented them the attached list of questions. Although the NCC NBAF members were certainly able to educate us, clarify and address many of these questions, we understand the responsibility of formally addressing the issues we have raised about the laboratory and its operation remains with DHS.

Allen, J. Russel

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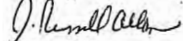
MD0045

Since the next step in the DHS national site selection process is to prepare a federal Environmental Impact Statement for each of the five finalist sites and DHS is conducting a formal public scoping process (i.e. public meetings and a public comment period) for each of the five finalist sites, the City of Raleigh is submitting the attached list of questions and comments for DHS consideration and response, as part of the public scoping process for the Bunter, North Carolina site.

Given the proposed NBAF site in Butner is located in the Falls Lake water supply watershed and near the lake itself, and given previous concerns the City has publicly expressed about the Butner (SGWASA) WWTP future treatment capacity, that have still to be fully resolved and finally, the North Carolina Division of Water Quality's monitoring work and modeling results will lead them apparently to list all of Falls Lake as impaired for chlorophyll a and for the upper part of the lake above NC 50 impaired for turbidity very soon - indicating the lake already has challenges ahead, the City is submitting the attached list of questions to DHS in order to receive a formal response and be properly engaged with DHS and their consultants, as they proceed through their national site evaluation / selection process for the NBAF.

We look forward to receiving a response to Raleigh's list of questions and comments from DHS. Please contact me at (919)-890-3070 or Raleigh Public Utilities Director, H. Dale Crisp at (919)-857-4540, if you have any question regarding this information.

Sincerely,



J. Russell Allen
City Manager

Cc: Mayor and City Council
City Attorney
City Clerk
Associate City Attorney – McLawhorn
Public Utilities Director
Asst. Public Utilities Directors – Jackson and Massengill
Environmental Coordinator – Rogers
Water Plants Superintendent
Arcadis – Hildebran and Sadler
Warwick Arden
Barrett Slenning

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CITY OF RALEIGH QUESTIONS REGARDING PROPOSED DHS BL4 FACILITY IN BUTNER

EIS / Final Site Selection Process

1. Who is preparing the Federal EIS for the proposed Butner site and when will it be available for review and comment?
2. When will a final decision be made on whether the Butner site is selected and who will make that decision?

Laboratory Testing

1. What biological agents does DHS anticipate working with at the lab that would be of human health concern if released? Will virulent pathogens, animal or human, be included in the biological agents to be evaluated? Will vaccines be available?
2. Will the lab use genetic engineering?
3. What quantities of infectious biological agents will be used and/or stored at the facility?
4. Will research involve laboratory animals and/or plants inoculated with disease agents? In what quantities?
5. Will the list be available to the general public?
6. How is a level 4 lab facility different from a level 3 lab facility?
7. Is this level 4 lab facility different than other level 4 lab facilities, and if so, how does it differ?

Engineering Controls

1. What does DHS envision as the worst case scenario and what engineering controls will be in place to ensure such an event will not occur?
2. What engineering controls will be in place to address contaminated waste treatment and disposal of experimental animal or plant remains? (e.g. pretreatment, incinerator, etc.)
3. Will management of the facility include provision for an oversight group including representatives from local municipalities?
4. What type of engineering controls will be on the ventilation systems (e.g. scrubber, HEPA filters, etc.)?
5. Will there be solid or liquid waste streams leaving the facility? If so, what level of pretreatment will be provided, and will the Town of Butner WWTP be required to provide additional treatment?
6. Will there be a dedicated water treatment plant and waste treatment facility on site?
7. What measures will be in place to protect the City of Raleigh drinking water supply?
8. How will the measures in place protect the City of Raleigh drinking water supply during usual operations?
9. How will the measure in place protect the City of Raleigh drinking water supply during upsets or catastrophes?

Sampling and Monitoring

1. At what frequency will liquid effluent from the facility be sampled and analyzed?
2. Will the samples be grab or composite?
3. Who will perform the analysis?
4. Will analysis include testing for DNA markers that would identify all infectious materials stored or being used in the facility?

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Allen, J. Russel

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5. Will monitoring include composite air samples similar to those currently being performed by DHS at other locations?
6. Will air monitoring include DNA analysis that will allow identification of all infectious materials housed in the facility?
7. How near to real time do you anticipate surrounding stakeholders (municipal governments, public health officials, voting public) will have access to results of monitoring activities?

Emergency Response

1. If a list of infectious biological agents used at this facility will not be available to the general public, how will DHS work with local public health professionals to ensure they and the medical community are prepared to deal with a worst case scenario?
2. What biological contamination incidents have occurred at other BL4 facilities and how was the exposure handled?
3. What type of employee training is required?
4. What are the law enforcement, fire, HAZMAT, security, and emergency response capacities of the Town of Butner?
5. Will infectious biological agents be used at the facility for which ordinary HAZMAT equipment is inadequate to control or to protect responders?
6. How will power failures be handled?
7. How will an accidental release be handled (both air borne and water borne)?
8. How will transportation safety and security of infectious biological agents and other hazardous materials be addressed? Major highways to and from the site cross the headwaters of Falls Lake, Raleigh's water supply.

Security

1. What is the strategic mission of this proposed facility?
2. What types of site security measures will be in place?
3. What security measures are currently used at other DHS facilities (level 3 and level 4) and what is the track record of performance?
4. Will access to the site be protected and monitored 24 hours a day, seven days a week?
5. How does DHS plan to secure the site from a terrorism attack?

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Allen, Lane

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08/18/2008 11:34 FAX [REDACTED] [REDACTED] 001
FD0019

Fax

To: James V. Johnson
U.S. Department of Homeland Security
Science & Technology Directorate

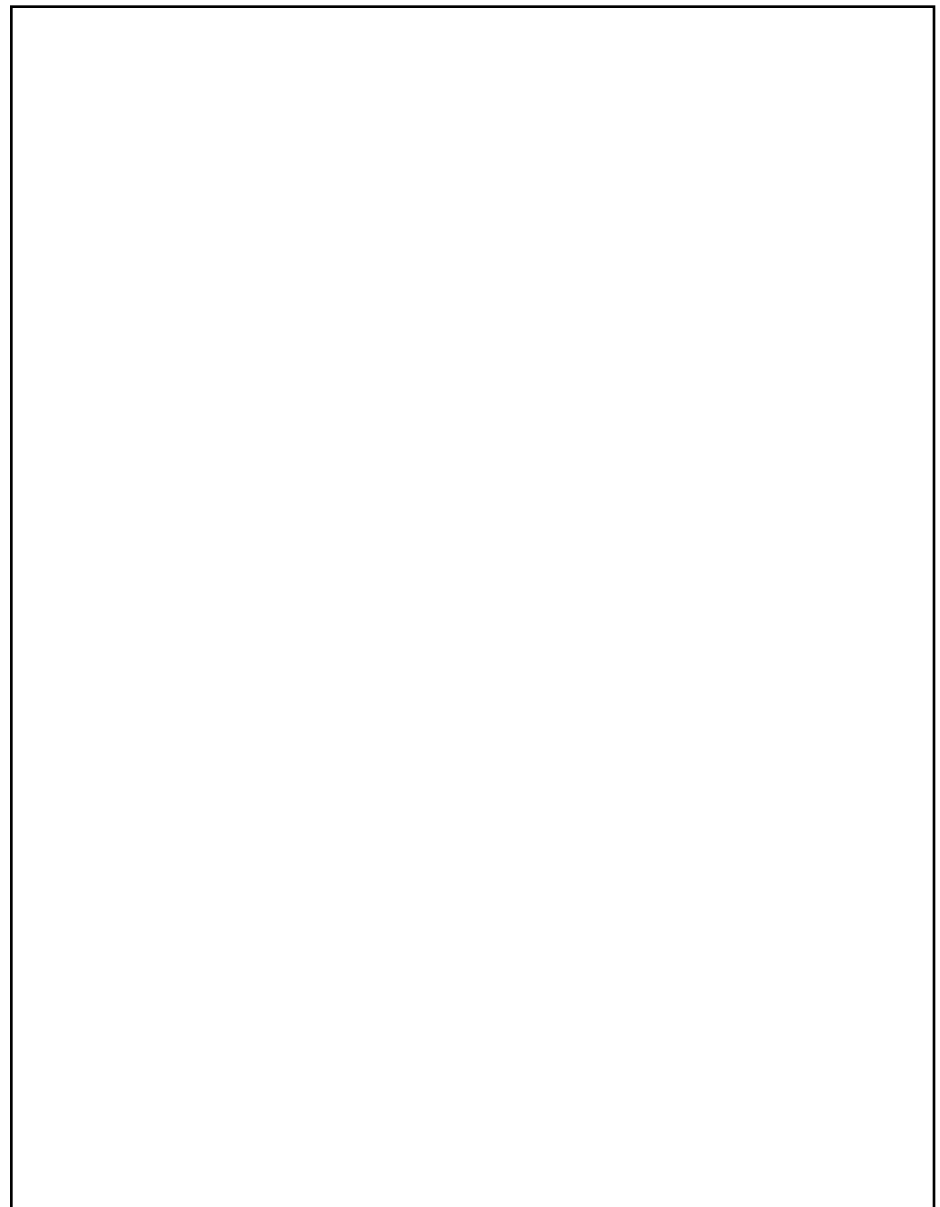
From: Lane Allen
[REDACTED] MS [REDACTED]

Fax: [REDACTED] Pages: 2 (inc cover)

Phone: Date:

Re: ccr

Urgent For Review Please Comment Please Reply Please Recycle



Allen, Lane

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08/18/2008 11:34 FAX [REDACTED] [REDACTED] 092
FD0019

August 18, 2008

To: Department of Homeland Security
Re: National Bio and Agro-Defense Facility (NBAF)

1 | 24.5 | I am a life long resident of the [REDACTED] Mississippi. I would like to express my support for the proposal to locate the new NBAF in Flora—a part of the metropolitan area. This metro area can provide the facility with the resources required to continue its role of defending our country against biological and agricultural hazards in a manner at least equal to if not superior to all other sites considered. From my years working for a Fortune 500 top 10 company, I know the positive response the area received when associates relocated to this area from across the country, including many that chose to retire here. The intelligence is here, the quality of life is here, the work ethic is here, the geography to support the facility is here, and the community support for the facility is here.

Please provide us the opportunity to demonstrate this to the nation. Thank You.

Lane Allen
[REDACTED]
[REDACTED] MS [REDACTED]

Comment No: 1 Issue Code: 24.5
DHS notes the commenter's support for the Flora Industrial Park Site Alternative.

Allison, Suzanne

Page 1 of 1

WD0152

From: info@athensfaq.org on behalf of Suzanne Allison [REDACTED]
Sent: Friday, August 01, 2008 10:03 AM
To: NBAFProgramManager
Subject: NBAF in Athens, Georgia

Dear NBAF Program Manager,

- 1|25.2 | I am extremely opposed to having NBAF located in Athens, GA. I do not feel this is the appropriate location for such a facility.
- 2|21.2 | Some specific concerns are that the DEIS discloses an "insectary" where disease-spreading mosquitoes and others will be bred. It also discloses that any release of pathogen, because of our warm, humid climate, could cause the disease to become permanently established in our community. Why risk this in such a community?
 How would DHS respond to a release? The EIS needs to show a detailed plan.
- 3|18.2 | Also, when will you disclose what is required by NEPA regarding incineration of animal carcasses as a disposal method? Are there alternative ways to do this?
- 4|6.2 | I am also very concerned about the location of the facility next to the State Botanical Garden. This site enhances our quality of life here and I will fight to protect such a valuable resource.
- 1 cont. | Please understand the people of Athens, GA do not want NBAF.
 25.2
- Thank you,
 Suzanne Allison

Sincerely,
 (Your Name)

Comment No: 1 Issue Code: 25.2

DHS notes the commentor's opposition to the South Milledge Avenue Site Alternative.

Comment No: 2 Issue Code: 21.2

DHS notes the commentor's concerns regarding safe facility operations. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. An analysis of potential consequences of a pathogen (e.g. Rift Valley fever virus) becoming established in native mosquito populations was evaluated in Section 3.8.9 and Section 3.10.9 as well as in Section 3.14 (health and Safety).

Comment No: 3 Issue Code: 18.2

Section 3.13.2.2 in Chapter 3 of the NBAF EIS addresses the technologies being considered for the treatment of animal carcasses and pathological waste. In addition, Table 3.13.2.2-4 provides a brief description and comparison of the three most likely technologies being considered (i.e., incineration, alkaline hydrolysis, and rendering). As discussed in this section, the final design for the NBAF will probably include more than one technology for the treatment of these wastes. Factors that may be considered in making this technology decision include individual site requirements and restrictions, air emissions, liquid and solid waste stream by-products, and operation and maintenance requirements.

Because the method of carcass/pathological waste disposal has not yet been determined, Section 3.4. of the EIS (Air Quality) assumes that the treatment technology with the greatest potential to negatively impact air quality, incineration, will be used to assess the maximum adverse effect. Similarly, because alkaline hydrolysis would have the greatest impact on sanitary sewage capacity, Section 3.3 of the EIS (Infrastructure) assumes that alkaline hydrolysis will be used to assess the maximum sanitary sewage impacts.

Comment No: 4 Issue Code: 6.2

DHS notes the commentor's concern and acknowledges the proximity of the South Milledge Avenue Site to the State Botanical Garden. Construction and normal operations of the NBAF would have no direct impact on the State Botanical Garden as indicated in Sections 3.8.3.2 and 3.8.3.3.

Almes, Ryan

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WD0567

From: Ryan & Kelli [REDACTED]
Sent: Sunday, August 24, 2008 5:10 PM
To: NBAFProgramManager
Subject: NBAF Support in Manhattan, KS

To whom it may concern:

1) 24.4 It is with surprise to me that I am writing a letter in support of placing the National Bio Agro-Defense Facility here in Manhattan, Kansas. My surprise is not from any change in perception on my part, I am just concerned that a very small minority of our community that opposes this facility may give the impression there is not public support here. I have been a resident since 1996 and would consider myself a cheerleader for our great community. In my personal and professional endeavors, I have not encountered anyone who opposes placing the NBAF here. The small outcry, very late in the process and seemingly unorganized, is fueled by ignorance about bio-containment and general lack of trust in government. I attended both public meetings here in Manhattan and got the feeling that most of the public concern may have been present no matter what the government was considering building.

Please choose Manhattan, Kansas as the future home of NBAF and the so important foreign animal disease research that is imperative to protecting our future. In this area, getting input from Kansas farmers is difficult at best. My father-in-law owns a small cow/calf operation within 50 miles. He would support this endeavor, but is not the type to send comments on the placement of NBAF. First and foremost because of general political disconnect, but probably even more outstanding is the fact that like myself, he feels that supportive comments were not needed because of the overwhelming amount of support in the region for protecting our agricultural and food animal production resources. This support and our location in the geographic center of food animal production makes Manhattan the absolute best place to locate this facility.

Thank you for your time and careful consideration of our great City.

Sincerely,

Ryan Almes

[REDACTED]
[REDACTED] KS
[REDACTED]

Comment No: 1

Issue Code: 24.4

DHS notes the commentor's support for the Manhattan Campus Site Alternative.

Almes, DVM, Kelli

Page 1 of 1

WD0821

From: Kelli Almes [REDACTED]
Sent: Monday, August 25, 2008 5:59 PM
To: NBAFProgramManager
Subject: NBAF support in Manhattan, KS

1| 24.4 | I am writing in support of locating the National Bio and Agro-Defense Facility in Manhattan, KS. Growing up on a
 small cow-calf farm within an hour of [REDACTED] I understood from an early age that agriculture is a vital part of
 who we are as Kansans. It is the lively-hood of so many and the sustenance of so many others. I have been a
 resident of [REDACTED] since 1998 and am a 2005 graduate of the Kansas State University College of Veterinary
 cont.| 1| 24.4 | Medicine. My farm background and formal education gives me an excellent understanding of why this facility is
 needed and why Manhattan is the perfect location. How can any location be better than the center of America's
 2| 8.4 | breakfast? Not to mention the close proximity of the veterinary medicine complex and the BRL.

As a senior veterinary student I was able to spend three weeks at Plum Island, including one week participating in
 the Pathologist's Foreign Animal Disease Course. Seeing these devastating diseases first hand, even on such a small
 3| 1.0 | scale, only confirmed my belief that research on them is extremely important to ensure the safety of America's
 agriculture. Seeing bio-containment in action and understanding the principles behind it assures me that a main-land
 NBAF location is safe.

4| 19.4 | A small group of unorganized residents in our city have recently spoken out against locating the NBAF here. They
 are attempting to thwart the extensive efforts of so many in favor by playing on the fears of the uninformed with
 rumors about how an FMD outbreak would mean the euthanasia of household pets along with human illness. Please
 do not let this last minute attempt by so few undo what so many have worked so hard for. Thank you for your time
 and your consideration of our great city. I look forward to your decision.

Kelli M. Almes, DVM

Office: [REDACTED]
 email: [REDACTED]

Comment No: 1 Issue Code: 24.4

DHS notes the commentor's support for the Manhattan Campus Site Alternative.

Comment No: 2 Issue Code: 8.4

DHS notes the commentor's statement.

Comment No: 3 Issue Code: 1.0

DHS notes the commentor's support for the NBAF and understanding that the proposed research
 would be safely conducted regardless of NBAF location.

Comment No: 4 Issue Code: 19.4

DHS notes the commentor's statement. FMD is not a public health threat, nor are typical house pets
 (e.g., cats, dogs, birds and other non-cloven hoofed household pets) affected by FMD.

Altschul, Donna

Page 1 of 1

WD0001

From: Donna Altschul [REDACTED]
Sent: Saturday, June 21, 2008 1:33 PM
To: NBAFProgramManager
Subject: Re: Plum Island

Department of Homeland Security:

1| 21.0 I hope you will rethink the proposal to relocate the Plum Island Facility. I would think it would be much
2| 5.1 easier to provide security to a restricted island, surrounded by water (in case of explosion), and
3| 24.1 downwind (east coast) of most of the continental United States, than on the mainland, where people like
Timothy McVeigh would have easier access! From a security point of view, access restricted to
helicopter and ferry would seem a big plus! Build the new facility on Plum Island.

Comment No: 1 Issue Code: 21.0

Security would be provided by a series of fencing, security cameras, and protocols. In addition, a dedicated security force would be present on-site. Additional security could be provided via cooperation with local law enforcement agencies. A separate Threat and Risk Assessment (TRA) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety. The TRA and security actions that would be implemented, based on TRA recommendations, are designated as For Official Use Only.

Comment No: 2 Issue Code: 5.1

DHS notes the commentor's concern for security. Security concerns will be considered in the selection of the preferred alternative.

Comment No: 3 Issue Code: 24.1

DHS notes the commentor's support for the Plum Island Site Alternative.

Anderson, Ederlee

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PD0129

August 17, 2008

1|25.2

I am Ederlee Anderson of [REDACTED] Georgia. I'm calling to express my disapproval of an NBAF facility in Athens.

Currently, Athens is a beautiful and safe city - a city for families and a city for retirees. Many retirees have settled in Athens because of the climate and the hometown environment.

I think the fathers, the city fathers, and the University of Georgia leaders and faculty approve of this facility because it means money. Greed.

Thank you.

Ederlee Anderson.

Comment No: 1

Issue Code: 25.2

DHS notes the commentor's opposition to the South Milledge Avenue Site Alternative.

Anderson, Mary Lou

Page 1 of 1

PD0080

August 15, 2008

15.0 This is Mary Lou Anderson, and I live in █████ Kansas. I just do not want to see the
bio research lab placed anywhere on mainland. I think it is a very bad idea.

That's all I have to say.

Thank you.

Comment No: 1 Issue Code: 5.0

DHS notes the commentor's opposition to the five mainland site alternatives.

Anderson, Roger

Page 1 of 1

PD0096

August 18, 2008

Yeah,

1|25.2; My name is Roger Anderson. I'm from [REDACTED] Kansas. I live [REDACTED]
2|5.0 [REDACTED] I'm a livestock producer and I'm currently not in favor of that bio chem lab
moving to Manhattan, Kansas. I'd just as soon it stay where it's at in the middle of the
ocean.

Thank you.

Comment No: 1 Issue Code: 25.4

DHS notes the commentor's opposition to the Manhattan Campus Site Alternative.

Comment No: 2 Issue Code: 5.0

DHS notes the commentor's opposition to the five mainland site alternatives.

Anderson, Stephen

Page 1 of 1

KSD012

Stupid on Steroids

The decision to locate the Bio-Research lab of highly contagious animal diseases on Plum Island, New York over 50 years ago was based on a sound scientific reason, Safety. It was remote and far from livestock when the inevitable accident happened. The G.A.O. and several congresspersons have slowly pried information out of the administration that confirms a series of accidents; one where foot and mouth disease was released into the cattle holding pens on Plum Island.

1| 5.0 Considering that this highly contagious disease can be carried on clothing, vehicles, the wind and even a human's breath, imagine the drastic consequences if that accident were located on the mainland.

Compounding the danger, the new lab will carry a Bio-Safety Level 4 status, which allows research on the most horrific microorganisms fatal to humans, for which there is neither cure nor vaccine.

2| 15.0
3| 19.0
4| 15.0
5| 21.0
6| 21.0
7| 11.0
8| 21.0
9| 21.0 This proposal to change sites is a purely political one that dangles millions of dollars of economic development, construction and jobs before the politicians in five states, with an as yet undisclosed political payback. The potential human and economic price of the inevitable accident, tornado, earthquake (Nemaha Fault), terrorist attack or deliberate personnel release would be catastrophic.

Why would the Governor and a majority of Kansans who fear emissions from a coal fired power plant, so nonchalantly ignore this more dangerous proposition and even lend it their support?

Why are our elected officials in Washington, D.C. willing to ante up their Kansas constituents and our livestock industry as pawns in their political poker games?

Is the student body mere disposable chattels, to a College administration, bent on securing this dangerous facility?

Kansas Farm Bureau's support of this lethal misadventure makes one question what type "grass" their much vaunted grass roots policy is being derived from?

8 cont.| 21.0 I steadfastly refuse to believe the two most rampant rumors; that the VEGAN movement promotes this more in hopes of an accident, crippling or destroying the U.S. livestock industry; or that the east coast elite were so frightened by the Ebola virus mistake and near-miss, that they want all dangerous research moved to the less populated Midwest. Whatever the reason we need not invite terrorists into the heartland with a target.

1 cont.|
5.0
10| 24.1 Human brains capable of reason and plain old common sense should tell us none of the five proposed new locations are safe for the horrifically dangerous research being conducted at a level 4 facility. This is not K-State vs. four other locations, winner take all. This is SAFETY vs. INSANITY. Plum Island has over 800 acres and new facilities, if necessary, should be constructed at that SAFE location.

Call, write, holler or shout; but at least do something to prevent this human or economic potential tragedy from an already stressed nation.

Stephen Anderson

Kansas

Comment No: 1 Issue Code: 5.0

DHS notes the commentator's opposition to the five mainland site alternatives.

Comment No: 2 Issue Code: 15.0

DHS notes the commentator's concern. The risk of an accidental release of a pathogen is extremely low, but DHS acknowledges that the possible economic effect would be significant for all sites. Section 3.10.9 of the NBAF DEIS presents estimates of the possible economic effect of an accidental release. Specifically, a virus released to the environment could become established and result in significant economic harm through damage to the livestock industry (culling and export bans) from FMD or through increased public health costs associated with the treatment of humans infected with the causal agent of RVF or Nipah. It should be noted that a primary objective of the NBAF is to combat the spread of viruses that could enter the US inadvertently or as the result of a terrorist act. Hence, the risk of operating the NBAF must be balanced against the potential benefits of the research that would be conducted at the facility.

Comment No: 3 Issue Code: 19.0

DHS notes the commentator's concern that proposed NBAF operations could result in an accident. Section 3.14 investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents. Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low.

Comment No: 4 Issue Code: 15.0

DHS notes the commentator's opinion.

Comment No: 5 Issue Code: 21.0

DHS notes the commentator's concerns regarding the health and safety of densely populated communities surrounding the NBAF. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. As described in Chapter 3 and summarized in Section 2.5 of the NBAF EIS, the impacts of activities during normal operations at any of the six site alternatives would likely be minor. Section 3.14 investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents. Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. Appendix B to the EIS describes biocontainment lapses and laboratory acquired infections. Laboratory-acquired infections have not been shown to be a threat to the community at large. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF then site specific protocols would be developed,

in coordination with local emergency response agencies that would consider the diversity and density of populations residing within the local area. DHS would have site-specific standard operating procedures and emergency response plans in place prior to the initiation of research activities at the proposed NBAF.

Comment No: 6 Issue Code: 21.0

DHS notes the commentor's concern regarding potential tornado impacts to the NBAF. The NBAF would be designed to withstand the normal meteorological conditions that are present within the geographic area of the selected site. The basis for establishing the anticipated wind speeds were the International Building Code, ASCE 7 and the local jurisdictions. However, because of code specified building importance modification factors and normal factors of safety incorporated into the structural design, the facility would resist wind pressures up to 170% of the code specified 50-year wind pressures. This means the building's structural system could resist a wind speed that is expected to occur, on the average, only once in a 500 year period.

In the unlikely event that a 500-year wind storm strikes the facility, the exterior walls and roofing of the building would likely fail first, and this breach in the exterior skin would cause a dramatic increase in internal pressures leading to further failure of the building's interior and exterior walls. The loss of these architectural wall components would decrease the overall wind loading applied to the building and therefore diminish the possibility of damage to the building's primary structural system. Even with the failure of these interior and exterior wall systems under an extreme wind loading event, the robust construction used to construct BSL-3Ag and BSL-4 spaces, reinforced cast-in-place concrete walls, would resist these wind forces and the primary bio-containment envelope would not be breached. The containment walls will be designed to withstand a 200 mph wind load, which is equivalent to an F3 tornado according to the FEMA Design and Construction Guidance for Community Shelters standards.

Comment No: 7 Issue Code: 11.0

DHS notes the commentor's concern regarding potential earthquake and tornado impacts to the NBAF. Sections 3.4, 3.6, and 3.14.3.2 of the NBAF EIS address design criteria and accident scenarios associated with natural phenomena events such as earthquakes and tornadoes. Section 3.6.4 discusses the Humboldt Fault system, also known as the Nemaha Fault, and was considered in the analysis of seismic risk to the Manhattan Campus Site. Section 3.6.1 describes the methodology used in assessing each sites seismic event potential. DHS notes the commentor's concern regarding potential tornado impacts to the NBAF. The NBAF would be designed and built to withstand the normal meteorological conditions that are present within the geographic area of the selected site (hurricanes, tornados, etc.). Given the nature of the facility, more stringent building codes are applied to the NBAF than are used for homes and most businesses, regardless of which NBAF site is chosen. The building would be built to withstand wind pressures up to 170% of the winds which are expected

to occur locally within a period of 50 years. This means the building's structural system could resist a wind speed that is expected to occur, on the average, only once in a 500 year period. In the unlikely event that a 500-year wind storm strikes the facility, the interior BSL-3Ag and BSL-4 spaces would be expected to withstand a 200 mph wind load (commonly determined to be an F3 tornado). If the NBAF took a direct hit from an F3 tornado, the exterior walls and roofing of the building would likely fail first. This breach in the exterior skin would cause a dramatic increase in internal pressures leading to further failure of the building's interior and exterior walls. However, the loss of these architectural wall components should actually decrease the overall wind loading applied to the building, and diminish the possibility of damage to the building's primary structural system. Since the walls of the BSL-3Ag and BSL-4 spaces would be reinforced cast-in-place concrete, those inner walls would be expected to withstand the tornado.

Comment No: 8 Issue Code: 21.0

DHS notes the commentor's concern regarding potential terrorist attack on the NBAF. Section 3.14 addresses accident scenarios, including external events such as a terrorist attack. A separate Threat and Risk Assessment (designated as For Official Use Only)(TRA) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety. Because of the importance of the NBAF mission and the associated work with potential high-consequence biological pathogens, critical information related to the potential for adverse consequences as a result of intentional acts has been incorporated into the NEPA process.

Comment No: 9 Issue Code: 21.0

DHS notes the commentor's concern regarding a deliberate release of a pathogen. Section 3.14 of the NBAF EIS addresses accident scenarios, including an employee initiated event. A separate Threat and Risk Assessment (designated as For Official Use Only)(TRA) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and would be used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety. Because of the importance of the NBAF mission and the associated work with potential high-biocontainment pathogens, critical information related to the potential for adverse consequences as a result of intentional acts has been incorporated into the NEPA process.

Comment No: 10 Issue Code: 24.1


DHS notes the commentor's support for the Plum Island Site Alternative.

Anderson, Steve

Page 1 of 1

07/25/2009 23:15 1622474835 CATFISH CAPITOL PAGE 01
FD0056

Belzoni-Humphreys
DEVELOPMENT FOUNDATION, INC.



To Whom It may Concern:

1| 24.5 **This is an exciting opportunity for our state because of the research and economic impact it will have. We have a great quality of life and people will want to move here to work in collaboration with the NBAF. We have great educational institutions that would support your work.**

Sincerely,
Steve Anderson

111 MAGNOLIA STREET * P.O. BOX 145 * BELZONI, MISSISSIPPI 39038 * (662) 247-4838
E-mail: catfish@belzonicable.com * www.catfishcapitalonline.com * Fax: (662) 247-4805

Comment No: 1 Issue Code: 24.5
DHS notes the commentor's support for the Flora Industrial Park Site Alternative.

Anderson, Thomas

Page 1 of 1

WD0279

From: Tom Anderson [REDACTED]
Sent: Friday, August 15, 2008 10:13 AM
To: NBAFProgramManager
Subject: letter in support of bio lab

[REDACTED]
 [REDACTED] NC

August 14, 2008

James V. Johnson
 US Department of Homeland Security
 Science and Technology Directorate
 245 Murray Lane, SW, Building 410
 Washington, DC 20528

Dear Mr. Johnson:

1|24.3 | I am writing this letter in SUPPORT of the NBAF laboratory being located in Butner, North Carolina. In my opinion, this is an ideal location for this type of research laboratory because of the proximity to the Research Triangle Park, the number of excellent colleges and universities with stellar research capabilities in the area, the availability of an outstand labor pool and the quality of life amenities associated with the region.

2|21.3 | Although some may feel this type of facilities presents an array of safety and security concerns that are important to all residents of this region, I personally feel they are being over blown compared to the benefits this type of facility bring to North Carolina. Environmental contamination can and does often occur which is part of our "high Tech" society, but the consequences are rarely fatal. I feel that this level 4 facility will have in place all the environmental protection mechanisms required and should present little or no chance of any form of negative impact to our air, water or soils.

1 cont. | Thank you for considering Granville County for this facility. Hopefully it will come into
 24.3 | fruition.

Sincerely,

Thomas F. Anderson

Comment No: 1 Issue Code: 24.3

DHS notes the commentor's support for the Umstead Research Farm Site Alternative.

Comment No: 2 Issue Code: 21.3

DHS notes the commentor's views and opinion regarding NBAF's environmental protection mechanisms. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment.

Anonymous FD0010, Anonymous FD0010

Page 1 of 1

Aug 11, 2009 11:11AM GREATER RALEIGH CHAMBER OF COMME No: 1230 P: 1/1

FD0010

To Whom It May Concern:

Re: The National Bio Agro Defense Facility proposed for Granville County, NC

1|25.3 I would like to express my concern and opposition to the proposed National Bio Agro
 2|21.3 Defense Facility to be placed near Burner, NC. This facility, which will be handling and
 3|12.3 experimenting with various diseases, poses an enormous threat to the safety of all who
 live near it. Not only are people's livestock and cattle threatened with an accidental
 release of diseases such as foot and mouth disease, but the safety of citizens is called into
 question also if ever there was an accident at the facility. To place this dangerous facility
 is such close proximity to people, animals, lakes and local water sources (including Falls
 Lake which is a primary water source in the region) is a terrible idea. Living just one
 county over from Granville, this facility threatens the safety of the region's water supply
 which is partially derived from Falls Lake. Since much of the toxic waste will eventually
 make its way into the lake, this facility's existence in our area is a recipe for disaster.
 cont. 1|25.3 While I do not agree with the creation this plant at all, anywhere, including all of its
 secret experimentation and testing without any oversight, I especially do not approve of it
 being located anywhere in North Carolina, particularly in Granville County. A quick
 drive through the Creedmoor/Butner area will reveal that everyone opposes this facility
 as opposition signs are on every property, including both businesses and residences - it is
 clear that everyone is against this facility.

**Do not bring the National Bio Agro Defense Facility to Granville County, or to
 anywhere in North Carolina.**

Signed,
 A concerned North Carolina resident

Comment No: 1 Issue Code: 25.3

DHS notes the commentor's opposition to the Umstead Research Farm Site Alternative.

Comment No: 2 Issue Code: 21.3

DHS notes the commentor's concerns regarding the impact of an accident on the local population, livestock, businesses and infrastructure. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. Section 3.14 and Appendix E of the NBAF EIS, investigates the chances of a variety of accidents that could occur with the proposed NBAF and the site specific consequences of each accident scenario to human populations, agriculture and livestock and wildlife. The chances of an accidental release are low. Appendix B to the EIS describes biocontainment lapses and laboratory acquired infections. Laboratory-acquired infections have not been shown to be a threat to the community at large. As set out in Section 3.14.3.4 of the NBAF EIS, employees and contractors will be screened prior to employment or engagement and monitored while working, among other security measures. In addition, oversight of NBAF operations, as described in Section 2.2.2.6 of the NBAF EIS, will be conducted in part by the Institutional Biosafety Committee (IBC), which includes community representative participation, and the APHIS Animal Research Policy and Institutional Animal Care and Use Committee. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF at the Manhattan Umstead Research Farm Site, site specific protocols would then be developed in coordination with local emergency response agencies and would consider the diversity and density of populations residing within the local area, to include agricultural livestock. The need for an evacuation under an accident conditions is considered to be a very low probability event. DHS would have site-specific standard operating procedures and emergency response plans in place prior to the initiation of research activities at the proposed NBAF.

Comment No: 3 Issue Code: 12.3

DHS notes the commentor's water quality concerns and DHS acknowledges the current regional drought conditions. As described in Section 3.7.7.3.1 of the NBAF EIS, the South Granville Water and Sewer Authority has 3 to 4 million gallons per day of excess potable water capacity and could meet NBAF's need of approximately 110,000 gallons per day, currently less than 0.4% of the Authority's total current capacity. The NBAF annual potable water usage is expected to be approximately equivalent to the amount consumed by 210 residential homes.

Anonymous GAD012, Anonymous GAD012

Page 1 of 1

GAD012

1 | 27.0

Last month, a Pakistani woman named Aafia Siddique was arrested in Afghanistan by the FBI. She graduated from MIT and then ~~has~~ earned a Phd in neuroscience at Brandeis University.

When she was arrested, she had in her possession maps of New York City, a list of potential targets that include the statue of liberty, Times Square, the subway system and most pertinent to this evening's agenda, the animal disease center on Plum Island.

She has been identified as the most significant radicalized al Qaeda operative captured in 5 years, by a high ranking CIA officer and also by the FBI.

2 | 21.2

My immediate concern is that the animal disease center on Plum Island has ^{already} been targeted by al Qaeda terrorist.

By bringing that facility into our community, we bring with it the potential of a terrorist attack. To make this decision would be unjustified and also foolhardy.

Comment No: 1

Issue Code: 27.0

DHS notes the commentor's concern regarding a potential terrorist attack on the NBAF. Section 3.14 of the NBAF EIS addresses accident scenarios, including external events such as a terrorist attack. A separate Threat and Risk Assessment (designated as For Official Use Only)(TRA) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety. Because of the importance of the NBAF mission and the associated work with potential high-consequence biological pathogens, critical information related to the potential for adverse consequences as a result of intentional acts has been incorporated into the NEPA process.

Comment No: 2

Issue Code: 21.2

Please see response to Comment No. 1.

Anonymous GAD018, Anonymous GAD018

Page 1 of 1

GAD018

1| 5.2


I would like to know more about NBACC, the National Biodefense Analysis and Countermeasures Center. This is a DHS lab currently being built at Fort Detrick, Maryland. In spite of local protest, ground for this 160,000-square-foot facility was broken nearly two years ago, but there is little information to be found on progress since then, even on the NBACC website. A document describing a December 2004 site visit states that "our goal is to have a completed, fully functional project by June 2008."

The NBACC mission, found on its website, "is to protect human health and agriculture against biological terrorism by improving understanding of potential bioterrorism threats". The facility will have BSL-2, -3 and -4 lab space and "will be the nation's premier research facility for biological threat characterization and bioforensic research".

My questions are:

2| 1.0

1. Is the NBACC project "completed [and] fully functional" as of this date? If not, how far behind schedule is it?
2. Has the full \$128 million requested by DHS and appropriated by Congress been received as of this date? If not, how much has been received?
3. Has the project stayed within its projected cost of \$128 million? If not, what is the current projected cost?
4. Does not the mission of NBACC duplicate to a large extent the missions of the CDC and of the proposed NBAF, making either NBACC or NBAF unnecessary?

 Ga.
Aug. 14 2008

Comment No: 1Issue Code: 5.2

The purpose and need for the proposed action is discussed in Chapter 1 of the EIS. DHS's Proposed Action to site, construct, and operate the NBAF would allow researchers to study foreign animal and zoonotic diseases (transmitted from animals to humans) in the U.S. The NBAF would enable DHS and the U.S. Department of Agriculture (USDA) to fulfill their respective missions of detecting, preventing, protecting against, and responding to an accidental or intentional release of a foreign animal disease within the United States.

The mission of NBACC is to provide an integrated and responsive biosecurity enterprise for homeland security, law enforcement, medical, and veterinary communities. Specifically, NBACC's goals are to (a) understand classical, engineered, and emerging biological terrorism threats; (b) develop deployable technologies and systems in partnership with operational end-users that protect the people, agriculture, and economy of the United States against biological terrorism; and (c) provide the scientific basis and operational capability to prevent technology surprise, rapidly detect events, respond effectively, and attribute use.

To put it simply, NBAF would conduct research to develop vaccines and diagnostic tools to identify and prevent the spread of foreign animal diseases, and the NBACC would develop technologies and operations to implement protective measures.

Comment No: 2Issue Code: 1.0


Please refer to response to Comment No. 1 regarding how the mission of NBACC and NBAF differ. The project schedule and NBACC costs are not within the scope of this study.

Anonymous GAD019, Anonymous GAD019

Page 1 of 1

GAD019

- 1|27.0 The "experts" want us to believe that none of the worst-case scenarios – environmental or otherwise - and very few of the other negative consequences – say, traffic congestion, visual, noise or air pollution – will befall us when NBAF comes to town. U.Ga's Dr. Lee assures us that all risk is "theoretical...very small and manageable" (ABH Forum, July 15, 2008).
And yet there was the matter that came to light recently of Dr. Bruce Ivins, the Fort Detrick, Maryland anthrax researcher who committed suicide when he thought he was about to be indicted for the anthrax murders of 2001. Dr. Ivins had a long and well-documented history of homicidal threats and sociopathic behavior. His eccentric behavior, even in the lab and when dealing with the deadly anthrax spores, was observed by investigators, friends, colleagues and a psychiatrist. One of his studies revealed that Dr. Ivins wished to be able to test anthrax on human subjects. Clearly, weaponized anthrax was being made by Dr. Ivins in his Fort Detrick lab. Weaponizing of anthrax is illegal under the 1972 International Bioweapons Convention agreement.
- 2|21.2 Was this "theoretical" possibility ever discussed at Fort Detrick, along with a plan to confront and remove unstable personnel working in the lab? Will it be a priority at NBAF? And if it is, will the DHS plan be more effective than the one – if, indeed, there was one – followed at Fort Detrick?

 *Yg.*
Aug. 14, 2008

Comment No: 1 Issue Code: 27.0

DHS notes the information provided by the commentor.

Comment No: 2 Issue Code: 21.2

DHS notes the commentor's questions about weaponizing biological agents. The NBAF's mission is defensive and would not involve offensive bioweapons research or development. The international treaty known as the Biological and Toxin Weapons Convention, to which the United States is a signatory, prohibits the development, production, stockpiling and acquisition of such weapons. DHS's mission is to study foreign animal and zoonotic (transmitted from animals to humans) diseases that threaten our agricultural livestock and agricultural economy. The goal of NBAF is to prevent these animal diseases from spreading in the United States through research into the transmission of these animal diseases and the development of diagnostic tests, vaccines, and antiviral therapies.

DHS notes the commentor's concern regarding a malicious and criminal act perpetrated by an NBAF employee. Section 3.14 and Appendix E of the NBAF EIS address accident scenarios, including internal and external events such as an "insider" criminal act and terrorist attack. A separate Threat and Risk Assessment (TRA) (designated as For Official Use Only) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety.

Anonymous GAD020, Anonymous GAD020

Page 1 of 1

GAD020

For David Lee, VP for Research at UGA:

1| 8.2 | There have been numerous memos this week about the massive budget cuts and adverse impact on the students, staff, and faculty of UGA. Layoffs are imminent, and travel and operating budgets have been cut by 80% or more. At the same time, you are offering \$25,000,000. of UGA's assets to which you have been entrusted to attempt to entice the highly controversial Bioterrorism lab here. How can you justify this considerable expenditure in light of immediate and severe need of UGA at this time?

For members of the panel:

2| 5.0 | During your last stop in Athens earlier this year, you hinted that the possibility of leaving Plum Island was being influenced by the high cost of housing for the workers there, which made it less likely you could attract staff. If you were making the decision of where to locate the Bioterrorism lab exclusively on the basis of the safety of the American public, and not on the basis of economics, would you house it somewhere on the mainland or on Plum Island?

For the panel:

3| 21.2 | 1. Can you 100% guarantee that there will not be an accidental release, either through mechanical or human error, of deadly biological agents?

2. Can you 100% guarantee that a rogue worker at the plant will not purposely take biological agents from the plant?

4| 2.0 | 3. Can you 100% guarantee that there will not be a change of policy by future political administrations and/or future Homeland Defense staff, and that the facility proposed for Athens will not also be used to house and study human bio-pathogens, in addition to those that are primarily related to agricultural animals?

For the panel:

5| 45.2 | If you could build a house for your spouse, children, mother and father that was within 1 mile downwind of the Bioterror lab, versus much further away, would you choose to do so? If no, then why do you expect this group of people who live here, to want it to move close to us?

For local politicians who may be present:

How can you put economics ahead of the safety of the people you were elected to serve?

Comment No: 1 Issue Code: 8.2

DHS notes the statement made by the commentator.

Comment No: 2 Issue Code: 5.0

Several factors will affect the decision on whether or not the National Bio and Agro-Defense Facility is built, and, if so, where. The environmental impact statement (EIS) itself will not be the sole deciding factor. The decision will be made based on the following factors: 1) analyses from the EIS; 2) the four evaluation criteria discussed in section 2.3.1 of the NBAF EIS; 3) applicable federal, state, and local laws and regulatory requirements; 4) consultation requirements among the federal, state, and local agencies, as well as federally recognized American Indian Nations; 5) policy considerations; and 6) public comment. The conclusions expressed in Section 3.14 show that even though Plum Island has a lower potential impact in case of a release, the probability of a release is low at all sites.

Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. The specific objective of the hazard identification, accident analysis, and risk assessment is to identify the likelihood and consequences from accidents or intentional subversive acts. In addition to identifying the potential for or likelihood of the scenarios leading to adverse consequences, this analysis provides support for the identification of specific engineering and administrative controls to either prevent a pathogen release or mitigate the consequences of such a release. The risk of an accidental release of a pathogen is extremely low. The risk of an accidental release of a pathogen is extremely low, but the economic effect would be significant for all sites. As described in Section 3.10.9, the economic impact of an outbreak of foot and mouth disease virus has been previously studied and could result in a loss in the range of \$2.8 billion in the Plum Island region to \$4.2 billion in the Manhattan, Kansas area over an extended period of time. The economic loss is mainly due to potential foreign bans on U.S. livestock products. Although the effects of an outbreak of Rift Valley fever virus on the national economy has not been as extensively studied, the potential economic loss due to foreign bans on livestock could be similar to that of foot and mouth disease outbreak, while the additional cost due to its effect on the human population could be as high as \$50 billion. There is little economic data regarding the accidental or deliberate Nipah virus release. However, cost would be expected to be much lower than a release of foot and mouth disease virus or Rift Valley fever virus as the Nipah virus vector is not present in the western hemisphere.

Comment No: 3 Issue Code: 21.2

The risk of an accidental release of a pathogen is extremely low but cannot be guaranteed not to occur. Section 3.14 and Appendix E of the NBAF EIS investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents, including external events such as a terrorist attack. Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional

acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. The specific objective of the hazard identification, accident analysis, and risk assessment is to identify the likelihood and consequences from accidents or intentional subversive acts. In addition to identifying the potential for or likelihood of the scenarios leading to adverse consequences, this analysis provides support for the identification of specific engineering and administrative controls to either prevent a pathogen release or mitigate the consequences of such a release. DHS would have site-specific Standard Operating Procedures and response plans in place prior to the initiation of research activities at the proposed NBAF.

DHS notes the commentor's concern regarding a malicious and criminal act perpetrated by an NBAF employee. Section 3.14 and Appendix E of the NBAF EIS address accident scenarios, including internal and external events such as an "insider" criminal act and terrorist attack. A separate Threat and Risk Assessment (TRA) (designated as For Official Use Only) was developed outside of the EIS process in accordance with the requirements stipulated in federal regulations. The purpose of the TRA was to identify potential vulnerabilities and weaknesses associated with the NBAF and are used to recommend the most prudent measures to establish a reasonable level of risk for the security of operations of the NBAF and public safety.

Comment No: 4 Issue Code: 2.0

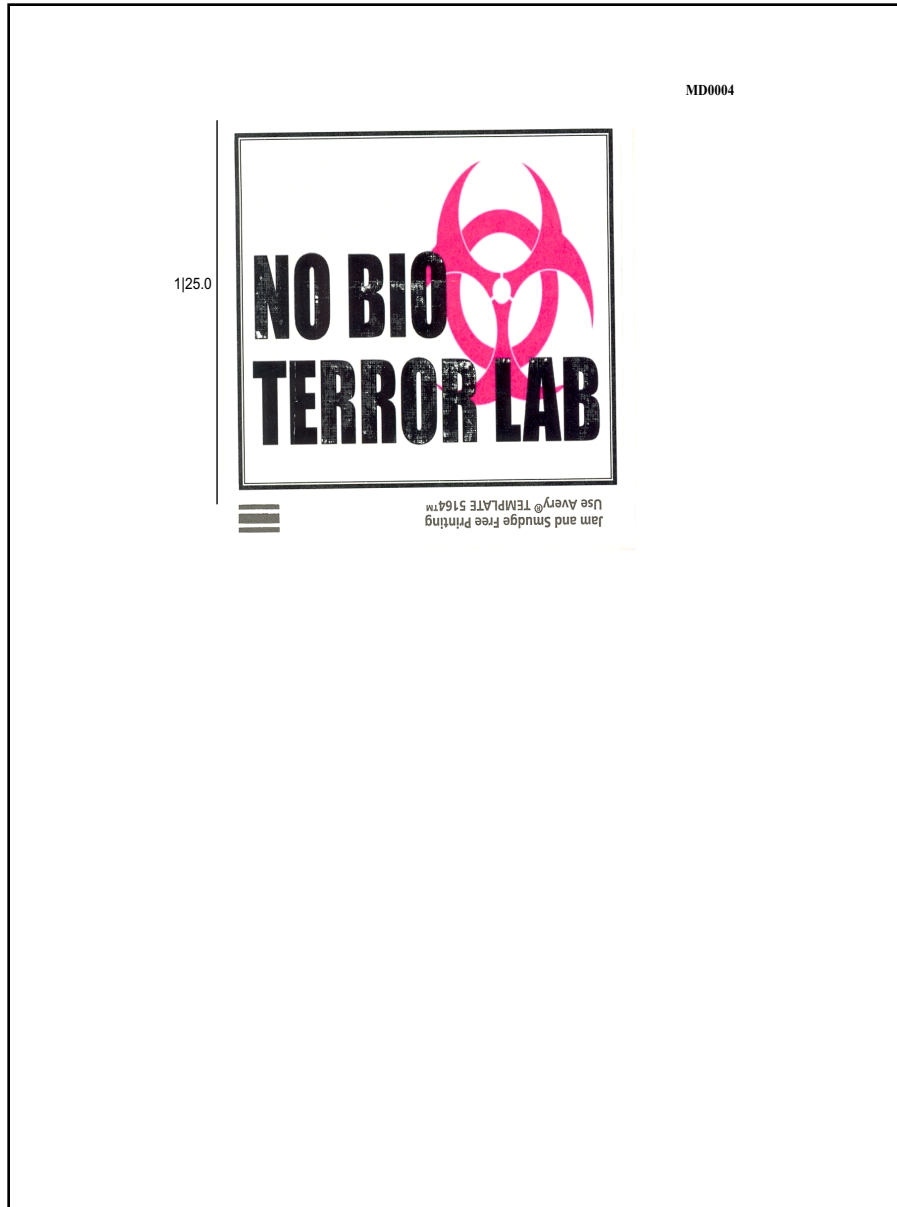
DHS notes the commentor's concern that all possible pathogens to be studied at the NBAF are not listed in the NBAF EIS. The pathogens to be studied at the NBAF as provided in Chapter 2, Section 2.2.1 of the NBAF EIS include Foot and Mouth Disease virus, Classical Swine Fever virus, Vesicular Stomatitis virus, Rift Valley Fever virus, Nipah virus, Hendra virus, and African Swine Fever virus. Should the NBAF be directed to study any pathogens not included in the list of pathogens included in the NBAF EIS, DHS and USDA would conduct an evaluate of the new pathogen(s) to determine if the potential challenges and consequences were bounded by the current study. If not, a new risk assessment would be prepared and a separate NEPA evaluation may be required.

Comment No: 5 Issue Code: 15.2

DHS notes the commentor's concern. The risks and associated potential effects to human health and safety were evaluated in Section 3.14 of the Draft EIS. The risks were determined to be low for all site alternatives.

Anonymous MD0004, Anonymous MD0004

Page 1 of 1



Comment No: 1 Issue Code: 25.0
DHS notes the commentator's opposition to the NBAF.

Anonymous MD0026, Anonymous MD0026

Page 1 of 1

MD0026

1| 27.0 Atlanta's CDC problems worry officials who invited the building in Athens of a of a huge, novel bio-containment structure. Recently the DHS declared the existing Plum Island, N.Y. facility to be the safest place for experimentation with dangerous viruses. The University of Georgia, where money problems threaten faculty pay cuts and layoffs, has proffered incentives of 66 acres of State land and \$26 million toward construction.

2| 21.2 Local officials have minimized potential pestilence. The DHS, in its Environmental Impact Statement, concluded that mosquitoes and conditions in the Athens area are favorable to rapid spread of diseases, including "foot-and-mouth" so deadly to livestock. Ranchers' lawsuits across the country are among the expected response to any outbreaks.

Homeowners, agricultural associations, and legislators must weigh in. This matter is too critical to be decided by leaders failing to recognize risks for disaster.

Comment No: 1 Issue Code: 27.0

DHS notes the commentor's statement.

Comment No: 2 Issue Code: 21.2

DHS notes the commentor's concern regarding an accident and spread of a disease. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. As described in Chapter 3 and summarized in Section 2.5 of the NBAF EIS, the impacts of activities during normal operations at any of the six site alternatives would likely be minor. Section 3.14 and Appendix E of the NBAF EIS investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents. Accidents could occur in the form of procedural violations (operational accidents), natural phenomena accidents, external events, and intentional acts. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release are low. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF then site specific protocols would be developed in coordination with local emergency response agencies. Oversight of NBAF operations, as described in Section 2.2.2.6 of the NBAF EIS, will be conducted in part by the Institutional Biosafety Committee (IBC), which includes community representative participation, and the APHIS Animal Research Policy and Institutional Animal Care and Use Committee.

Anonymous MD0028, Anonymous MD0028

Page 1 of 2

MD0028

Referendum on NBAF

The presumption of those who desire to locate NBAF on the Athens-Clarke/Oconee county line

is that only a small group of "aginnners" criticize this proposition. Writer Blake Giles (THE

OCONEE ENTERPRISE, May 1, 2008) attempts to make a divisive Republican/Democrat

issue of this legitimate concern in our community. A referendum in A/C and Oconee Counties

1| 4.0

(and perhaps others) is required for measuring the real level of support for the proposed NBAF

location.

We have been supposed to have been bowled over by the UGA and special interests push for this

2| 15.2

location. Exaggerations as to future economic benefits and diminution of the size of Wal-

Marts are hardly the conclusions of careful stewards of important information. Some

leaders and boosters don't seem to want to look a gift horse-disease in the mouth. But with so

much "hoof-in- mouth" going around, it might be a good idea to take another look.

While we were assured by Dr. Phillip Holmes (Banner-Leader, February 24, 2008) that he

speaks with one voice for the UGA science faculty in favoring NBAF for Athens, safety

questions may not be so easily resolved. Surely it is not lunacy to want the non-scientific

community, especially elected officials, to have greater understanding of this project than they

presently admit to. As to the safety of bio labs across the country, with hundreds of reported

Comment No: 1 Issue Code: 4.0

DHS notes the commentor's support for a referendum to measure public opinion regarding the siting of NBAF at the South Milledge Avenue Site. Several factors will affect the decision on whether or not NBAF is built, and, if so, where. The NBAF EIS itself will not be the sole deciding factor. The decision will be made based on the following factors: 1) analyses from the EIS; 2) the four evaluation criteria discussed in Section 2.3.1; 3) applicable federal, state, and local laws and regulatory requirements; 4) consultation requirements among the federal, state, and local agencies, as well as federally recognized American Indian Nations; 5) policy considerations; and 6) public comment.

Comment No: 2 Issue Code: 15.2

DHS notes the commentor's concern about the economic benefits of NBAF. In Section 3.10, the NBAF EIS evaluates only the foreseeable economic effects of the proposed action. Secondary economic growth could occur but can not be predicted.

Anonymous MD0028, Anonymous MD0028

Page 2 of 2

MD0028

3| 21.2 | accidents, local citizens may take little comfort from the statement that "...there have been only a few fatalities."

With laudable candor, DHS spokespersons at the meeting of August 19, could only pledge to try

to avoid possible contamination of land and water supplies. The two county commissioners

desiring to learn more about this project frankly admitted their infrastructure concerns, and

Commissioner Kathy Hoard has raised important, unanswered questions. The DHS has yet to

4| 17.2 | definitively address traffic congestion, water supply and consumption, and waste disposal
5| 12.2 | and
6| 18.2 |

holds that more specific plans are necessary for consideration.

It would seem premature to rush to judgment, given so many uncertainties. But before the mayor

and commissioners assume community support or act against the best interests of our

wonderful region, shouldn't they at the minimum learn of their levels of support. Sure reasoning

2 cont.| 4.0 | requires more evidence than has thus far been received. How about a referendum before denigrating the concerns of many?

Comment No: 3 Issue Code: 21.2

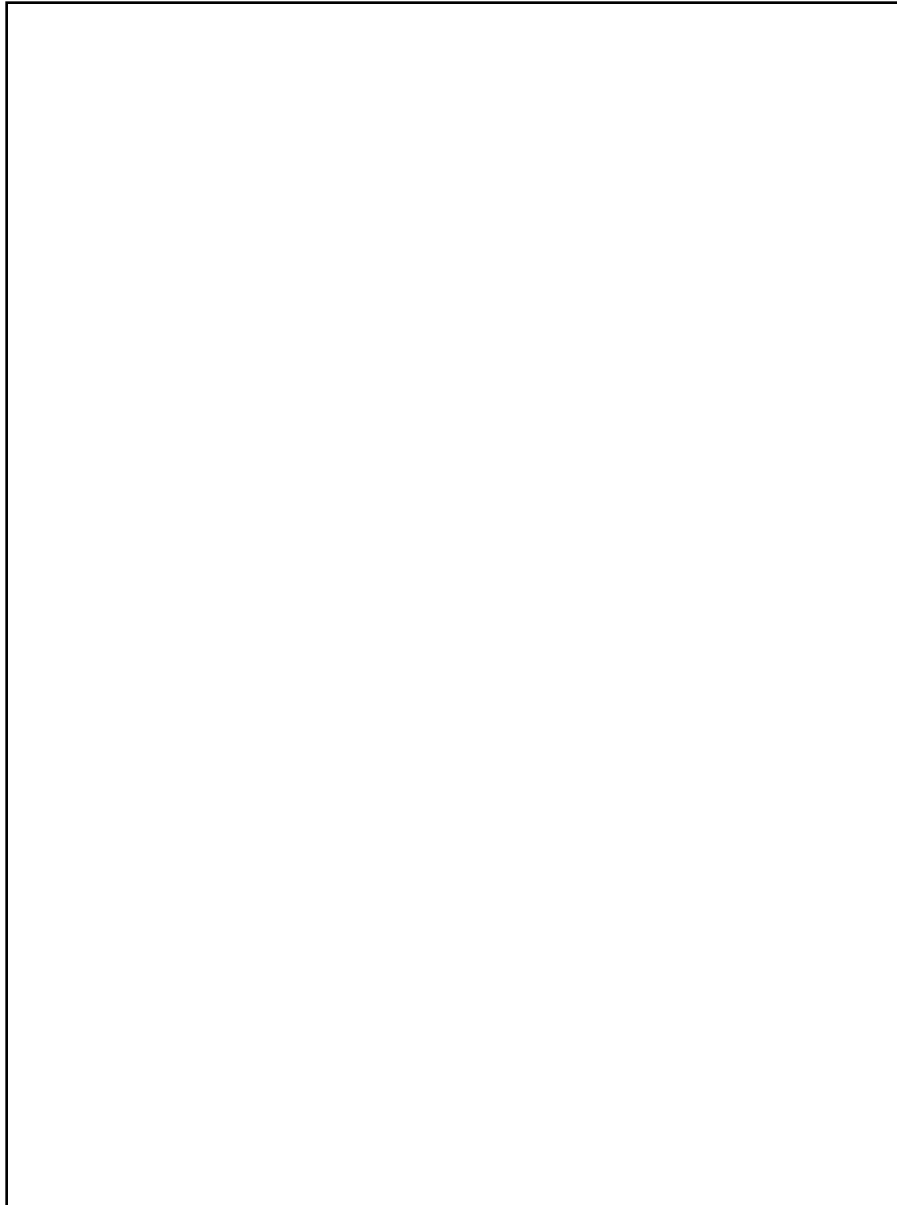
DHS notes the commentor's concerns regarding the risks associated with a pathogen release. The NBAF would be designed, constructed, and operated to ensure the maximum level of public safety and to fulfill all necessary requirements to protect the environment. Section 3.14 and Appendix E of the NBAF EIS, investigates the chances of a variety of accidents that could occur with the proposed NBAF and consequences of potential accidents, including releases due to weather events. The chances of an accidental release are low. Although some accidents are more likely to occur than others (e.g., safety protocol not being followed), the chances of an accidental release based on human error are low in large part due to the design and implementation of biocontainment safeguards in conjunction with rigorous personnel training. For example, as described in Section 2.2.2.1 of the NBAF EIS, all laboratory staff would receive thorough pre-operational training, as well as ongoing training, in the handling of hazardous infectious agents, understanding biocontainment functions of standard and special practices for each biosafety level, and understanding biocontainment equipment and laboratory characteristics. Appendix B to the EIS describes biocontainment lapses and laboratory acquired infections. Laboratory-acquired infections have not been shown to be a threat to the community at large. As set out in Section 3.14.3.4 of the NBAF EIS, employees and contractors will be screened prior to employment or engagement and monitored while working, among other security measures. In addition, oversight of NBAF operations, as described in Section 2.2.2.6 of the NBAF EIS, will be conducted in part by the Institutional Biosafety Committee (IBC), which includes community representative participation, and the APHIS Animal Research Policy and Institutional Animal Care and Use Committee. Should the NBAF Record of Decision call for the design, construction, and operations of the NBAF, site specific protocols would then be developed in coordination with local emergency response agencies and would consider the diversity and density of populations, including institutionalized populations, residing within the local area. The need for an evacuation under an accident conditions is considered to be a very low probability event. DHS would have site-specific standard operating procedures and emergency response plans in place prior to the initiation of research activities at the proposed NBAF. DHS believes that experience shows that facilities utilizing modern biocontainment technologies and safety protocols, such as would be employed in the design, construction, and operation of the NBAF, would enable the NBAF to be safely operated.

Comment No: 4 Issue Code: 17.2

DHS notes the commentor's concern. A discussion of existing road conditions and potential effects to traffic and transportation associated with the construction and operation of the NBAF are located in Section 3.11 of the NBAF EIS.

Comment No: 5 Issue Code: 12.2

DHS notes the commentor's water supply concerns. Section 3.7.3.3.1 of the NBAF EIS describes the NBAF at the South Milledge Avenue Site as using approximately 118,000 gallons per day of potable water, or approximately 0.76% of Athens' 15.5 million gallons per day usage. The NBAF potable



water usage is comparable to approximately 228 residential homes. Section 3.3.3.1.1 notes that the current 8-inch potable water force main along South Milledge Avenue is not sufficient to accommodate the NBAF's demand.

Comment No: 6 Issue Code: 18.2

DHS notes the commentor's concern. EIS Section 3.13 discusses waste management issues associated with construction and operation of the NBAF. Waste issues specifically associated with the South Milledge Avenue Site in Georgia are considered in Section 3.13.4.