United States which require a permit for importation, unless they are specified for higher classification.

This risk group includes pathogens which require special conditions for containment. Agents in this group can be used in laboratories where staffs have levels of competency equal to or greater than one would expect in a college department of microbiology, and who have had special training in handling these or similar pathogens which cause potentially lethal disease. Workers are to be supervised by competent scientists trained and experienced in handling these biohazardous agents/materials. Examples include: Brucella melitensis, Coxiella burnetii, Mycobacterium tuberculosis, Rickettsia rickettsii, etc.

Appendix B-III-C-1. Risk Group 3— Bacterial Agents, including Chlamydia and Rickettsia

Bartonella spp.

Brucella spp. including B. abortus, B. canis, B. melitensis (USDA restricted),

Burkholderia (Pseudomonas) mallei, B. pseudomallei (see Appendix B-VI-F) Coxiella burnetii

Francisella tularensis

Mycobacterium bovis, M. tuberculosis Pasteurella multocida type B—"buffalo" and others (see Appendix B-VI-F)

Rickettsia akari, R. australis, R. canada, R. conorii, R. prowazekii R. rickettsii, R, siberica, R.

tsutsugamushi, R. typhi (R. mooseri) Yersinia pestis (antibiotic resistant strains)

Appendix B-III-C-2. Risk Group 3— **Fungal Agents**

Coccidioides immitis (sporulating cultures; contaminated soil) Histoplasma capsulatum, H. capsulatum var. duboisii

Appendix B–III–C–3. Risk Group 3— Parasitic Agents

None

Appendix B-III-C-4. Risk Group 3— Viral Agents

Arboviruses 8 and certain other viruses assigned to Risk Group 3 (see Appendix B-VI-I and Tables 5 and 6). Lymphocytic choriomeningitis virus (LCM) (neurotrophic strains) Monkey pox virus—when used in vitro (see Appendix B–VI–H) Rabies Street virus

Appendix B-III-D. Risk Group 4-Agents

Dangerous and exotic agents which pose a high individual risk of aerosol transmitted laboratory infections which result in a life-threatening disease, or related agents with unknown means of transmission. These agents require the most stringent conditions for their containment because they are extremely hazardous to laboratory personnel or may cause serious epidemic disease. These agents may only be used in special facilities where the staff has a level of competency equal to or greater than one would expect in a college department of microbiology, and who have had specific and thorough training in handling dangerous pathogens, including the specific techniques to be used. Such workers are to be supervised by competent scientists.

Appendix B-III-D-1. Risk Group 4— **Bacterial Agents**

Appendix B-III-D-2. Risk Group 4— **Fungal Agents**

None

Appendix B-III-D-3. Risk Group 4— Parasitic Agents

Appendix B-III-D-4. Risk Group 4— Viral Agents

Absettarov

Central European encephalitis viruses Crimean hemorrhagic fever (Congo) Ebola fever virus

Guanarito

Hanzalova

Hemorrhagic fever agents and viruses as yet undefined

Herpesvirus simiae (Monkey B virus) Hypr

Junin (BL3* if vaccine is used) Kumlinge

Kyasanur forest disease

Lassa

Machupo

Marburg

Omsk hemorrhagic fever Russian spring-summer encephalitis

Tick-borne orthomyxoviridae, Dhori &

Appendix B-IV. Restricted Plant Pathogens

Non-indigenous pathogens of plants may require special laboratory design, operation and containment features not generally addressed in the CDC/NIH guidelines. Information on the importation, possession or use of these agents is to be obtained from the USDA, APHIS. Guidelines for handling recombinant plants are in Appendix P.

Appendix B-V. Restricted Animal Pathogens

Non-indigenous pathogens of domestic livestock and poultry may require special laboratory design, operation, and containment features not generally addressed in the CDC/NIH guidelines. The importation, possession or use of these agents is prohibited or restricted by law or by the U.S. Department of Agriculture regulations or administration policies. Animal pathogens other than those listed as zoonotic agents Appendix B may also be subject to USDA regulations. See Appendix Q for guidelines for recombinant animals.

Appendix B-V-A. Organisms which may not be studied in the United States except at Specified Facilities

Alastrim (see Appendix B–VI–H) Small pox (see Appendix B–VI–H) White pox (see Appendix B–VI–H)

Appendix B-VI. References of Appendix

Appendix B–VI–A. For the purposes of these Guidelines, the list in Appendix B has been revised by using the Risk Group classification recommended by the World Health Organization (See Appendix B-VI-E), and adding information from agent summary statements of the CDC/NIH "Biosafety in Microbiological and Biomedical Laboratories" (See Appendix B-VI-D), from the APHA, "Control of Communicable Diseases of Man" (See Appendix B-VI-B), and from a special committee of the American Society for Microbiology. Information in Tables 1 and 2 came from the WHO reference (See Appendix B-VI-E) while that for Tables 3-6 and for Appendix B-V and B–VI was obtained directly from the CDC on computer disc. The original reference for this classification was the publication Classification of Etiologic Agents on the Basis of Hazard, 4th edition, July 1974 (See Appendix B-VI-C). A draft 1982 CDC document which included a more complete risk assessment of a larger group of human pathogens was also used (Dr. R. Knudsen, CDC, personal communication). For the purposes of these NIH Guidelines, these lists are revised by the NIH.

⁸The 171 arboviruses in Risk Group 3 are found in Appendix B-VI-I and Tables 5 and 6. Arboviruses indigenous to the United States are in Risk Group 3 except those listed in Risk Group 2 (Tables 3 and 4). West Nile and Semliki Forest viruses may be classified up or down depending on the conditions of use and geographical location of the laboratory.