

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

CLERK'S OFFICE
U.S. DISTRICT COURT
DISTRICT OF COLUMBIA

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UNITED STATES OF AMERICA,

PLAINTIFF,

v.

AMERICAN NATIONAL RED CROSS

a corporation,

DEFENDANT.

Civil No. 93-0949 (JGP)

AMENDED CONSENT
DECREE OF
PERMANENT INJUNCTION

Plaintiff, United States of America, having filed a Complaint for permanent injunction on the 7th day of May, 1993, this Court having entered a Consent Decree of permanent injunction on the 12th day of May, 1993, the United States having thereafter on December 13, 2001 filed a motion seeking to hold the American National Red Cross in contempt thereof, and the defendant, American National Red Cross, a corporation created by Act of Congress, having appeared and having consented to the entry of this amended consent decree (hereafter, "Order") in order to further its commitment to provide safe blood and enable it to focus on blood safety rather than litigation, and without admitting or denying the allegations in said motion, and the United States of America having consented to this Order, and having moved this Court therefor,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED, that:

- I. This Court has jurisdiction over the subject matter herein, and has personal jurisdiction over all parties to this action.
- II. The Complaint for injunction states a claim for relief under the Federal Food, Drug and Cosmetic Act (FDC Act), 21 U.S.C. section 301 *et seq.*, and the Public Health Service Act (the PHS Act), 42 U.S.C. section 201 *et seq.*

III. DEFINITIONS:

A. The definitions in this paragraph apply throughout the Order. Defined terms are italicized when used in the Order.

B. Defined Terms:

1. *ABO/Rh testing*: laboratory testing for blood group and Rh type (e.g., A negative) that satisfies the requirements of 21 C.F.R. §§ 640.5(b) and 640.5(c);
2. *adverse reaction*: any undesirable event associated with the collection of *blood*, or any undesirable recipient reaction associated with the transfusion of any *blood* or *blood components*, whether or not considered product related;
3. *Analysis and Investigation Group*: specific persons within the Quality Assurance unit at *ARC National Headquarters* (to be identified by *ARC* in writing by position in its *SOP*) responsible for initiating and completing a thorough analysis and investigation of each *Summary Problem Report* submitted by each *region* and *laboratory* to discover *trends* and *system problems*, and for issuing an *Analysis and Investigation Report* to *ARC senior management*;
4. *Analysis and Investigation Reports*: reports written by the *Analysis and Investigation Group* that identify and analyze *trends* and *system problems*;
5. *ARC*: American National Red Cross, including, but not limited to, *ARC National Headquarters*, *ARC Biomedical Headquarters*, *ARC's National Confirmatory Testing Laboratory*, each *ARC National Testing Laboratory*, *ARC's National Testing and Reference Laboratory*, and each *region*;
6. *ARC Biomedical Headquarters*: The *ARC* components that oversee the collection, manufacturing, processing, packing, and distribution of *blood* and *blood components* in all *ARC* facilities;

7. *ARC Biomedical Services Committee*: A committee of *ARC*'s Board of Governors consisting of the Chairman of *ARC*'s Board of Governors and not fewer than 10 nor more than 14 members. A majority of the members must be on the *ARC* Board of Governors;

8. *ARC Biomedical Services senior management*: the Executive Vice President and Chief Executive Officer, Biomedical Services; the Senior Vice President and Chief Operating Officer, Biomedical Services; the Vice President and Chief Operating Officer, Plasma Services, Biomedical Services; the Senior Vice President, Quality and Regulatory Affairs, Biomedical Services (also referred to herein as Director of Quality Assurance); the Director of Training, Biomedical Services (also referred to herein as the Director of Training); the Vice President and Chief Scientific Officer, Biomedical Services; and any persons acting in these capacities or performing their duties;

9. *ARC National Headquarters*: The *ARC* component that oversees *ARC Biomedical Headquarters* and all other *ARC* national non-blood health and safety services programs;

10. *ARC senior management*: the President and Chief Executive Officer, *ARC*; the Executive Vice President and Chief Executive Officer, Biomedical Services; the Senior Vice President and Chief Operating Officer, Biomedical Services; the Vice President and Chief Operating Officer, Plasma Services; the Senior Vice President, Quality and Regulatory Affairs, Biomedical Services; the Chief Information Officer; General Counsel; and any persons acting in these capacities or performing their duties;

11. *audit SOPs*: standard operating procedures governing *ARC* internal audits;

12. *biological product deviation*: a deviation from *CGMP*, applicable regulations, applicable standards, or established specifications that may affect the safety, purity, or potency of

distributed *blood* or *blood components*, or an unexpected or unforeseeable event that may affect the safety, purity, or potency of distributed *blood* or *blood components*;

13. *blood*: whole blood collected from a single donor and processed either for transfusion or further manufacture, as defined in 21 C.F.R. § 606.3(a);

14. *blood component*: part of a single donor's *blood* separated by physical or mechanical means, as defined in 21 C.F.R. § 606.3(c), and for purposes of this Order, any products derived therefrom;

15. *blood establishment computer software* ("*computer software*"): all software and software accessories (such as software interfaces), intended for use in the manufacture of *blood* or *blood components* or for the maintenance of data that personnel use in making decisions regarding the suitability of donors, the release of *blood* or *blood components* for transfusion or further manufacture, and for the maintenance of records of product disposition;

16. *BSDs*: ARC Blood Services Directives;

17. *BSLs*: ARC Blood Services Letters;

18. *business days*: Monday through Friday, excluding federal holidays;

19. *CGMP*: current good manufacturing practice;

20. *Clarify reports*: reports to ARC Biomedical Headquarters from *regions* and *laboratories* used by ARC to record issues related to approved biomedical services, processes, and systems;

21. *CMV*: cytomegalovirus;

22. *computer software assessment*: a review of *computer software* requirements, design specifications, hazard analyses, traceability, testing, error reports, and outstanding

computer software defects to ensure the device meets user needs and intended use and follows required design controls to ensure the integrity of the device;

23. *computer software defect*: a fault or problem that exists in the *computer software*, whether or not design related, which, if not corrected, could cause the *computer software* to fail or produce incorrect results;

24. *confirmatory testing*: a more specific test performed on a sample of *blood* that tested repeatedly reactive by a screening test for a viral marker, to ensure that the screening test results were accurate;

25. *corrective action effectiveness criteria*: all factors that *ARC* has identified for use in assessing whether an implemented corrective action has adequately corrected the *problem, trend, system (systemic) problem*, or deficiency that it was intended to correct, will prevent recurrence of that *problem, trend, system (systemic) problem*, or deficiency, and will not adversely affect any other system or process;

26. *Corrective Action Monitoring Reports*: *ARC* reports written by *Corrective Action Monitors* that clearly state whether the *Corrective Action Plan* is being properly and timely implemented, whether each of the *corrective action effectiveness criteria* in the *Corrective Action Plan* is being met, and whether the plan is effective to prevent the recurrence of the *problems*, and that describe in detail any impediments or difficulties encountered that may prevent effective and timely implementation of the *Corrective Action Plan* and any changes necessitated thereby;

27. *Corrective Action Monitors*: specific persons at *ARC Biomedical Headquarters*, to be identified by *ARC* in writing by position in its *SOP*, responsible for actively, carefully, and at

specific time intervals, monitoring each *Corrective Action Plan* to ensure continuous effectiveness;

28. *Corrective Action Plans*: ARC written plans that address the findings set forth in *Analysis and Investigation Reports*, that establish a course of action to correct and prevent recurrence of *system (systemic) problems*, and that confirm or correct determinations in *Analysis and Investigation Reports* regarding the release for distribution of *unsuitable blood and blood components*;

29. *days*: calendar days;

30. *DDR*: Donor Deferral Registry;

31. *DMS*: Data Management System;

32. *donor file check*: a list of donors not properly identified for deferral in the *NDDR*, which *ARC Biomedical Headquarters* distributes to *regions* to determine whether any of those donors donated during a specified time period when the donors should have been deferred;

33. *duplicate or discrepant records*: multiple donor records for the same donor which, because of inconsistent or duplicated information, may result in the release for distribution of *unsuitable blood components*;

34. *equipment*: all equipment used to collect, manufacture, process, pack, hold, or distribute *blood* or *blood components*;

35. *equipment qualification*: verification that the equipment is installed and will consistently operate according to written and pre-approved specifications throughout all specified operating ranges;

36. *equipment validation*: documented evidence that provides a high degree of assurance that *equipment* will consistently operate within established limits and tolerances;

37. *FDA-483 observation*: a condition or practice, relating to *blood* or *blood components* and/or to collecting, manufacturing, processing, packing, storing, or distributing *blood* or *blood components*, that an FDA investigator observed during an inspection and reported in writing to ARC management at the conclusion of the inspection, in accordance with 21 U.S.C. § 374(b);

38. *FDA-483s*: the forms on which FDA investigators record their *FDA-483 observations*;

39. *FD&C Act*: Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 301, *et seq.*;

40. *internal deviation reports*: internal ARC reports in any form, including hotline reports, that memorialize or indicate ARC deviations from *the law*, *ARC SOPs*, or this Order;

41. *invalid donor record*: a donor record with improper characters or blanks that may result in release for distribution of *unsuitable blood* or *blood components*;

42. *laboratories/laboratory*: ARC's National Testing and Reference Laboratory, ARC's National Testing Laboratories, ARC's regional Immunohematology Reference Laboratories, and ARC's National Confirmatory Testing Laboratory;

43. *the law*: *FD&C Act*, *PHS Act*, and all relevant regulations;

44. *lookback*: the steps taken to track *unsuitable blood* or *blood components* and to notify consignees when a previous donor subsequently tests positive for infectious disease markers;

45. *MACS*: Manufacturing and Computer Standardization;

46. *NBCS*: National Biomedical Computer System;

47. *NDDR*: National Donor Deferral Register;

48. *penalty, review, and appeal procedures*: the procedures for penalties, FDA review, and Court appeal set forth in paragraph IX of this Order;

49. *PHS Act*: Public Health Service Act, 42 U.S.C. § 201, *et seq.*;

50. *post donation information*: information received by *ARC* after a donation that was not previously provided to *ARC* and not required to be solicited by *ARC* during the donation, and that indicates that the *blood* and *blood components* collected from the donor are *unsuitable*;

51. *potential system (systemic) problem*: a *problem* that may have an adverse impact on donor or recipient safety or the *purity* of *blood* or *blood components* and that may affect more than one *ARC region* and/or *laboratory*;

52. *problem*: any deviation from *the law*, *ARC SOPs*, or this Order, however discovered, recorded, or reported, including, but not limited to deviations reported in *ARC Clarify reports* (and/or in any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports*, *internal deviation reports*, *trends*, *adverse reaction reports*, *lookback cases*, cases of *suspected transfusion-transmitted disease*, *potential system (systemic) problems*, *system (systemic) problems*, supply and *equipment problem reports*, *FDA-483s*, compliance-related FDA correspondence, internal and external audit reports, and *retrievals*;

53. *Problem Management SOPs*: the *SOPs* required by paragraph IV.B.1 of this Order;

54. *Problem Management Systems*: systems used by *ARC regions* and *laboratories* to log, track, and trend all *problems*;

55. *procedures for SOP, report, and plan submission, review, and implementation*: the procedures set forth in paragraph VI of this Order;

56. *purity*: actual or purported safety, quality, identity, potency, and purity of *blood* or *blood components* as defined in *the law*;

57. *QA/QC program*: written *SOPs* for quality assurance and quality control that *ARC* must establish, implement, and continuously maintain under paragraph IV of this Order to ensure that *blood* and *blood components* are collected, manufactured, processed, packed, held, and distributed by *ARC* in accordance with *the law*, *ARC SOPs*, and this Order, and have the *purity* that they purport or are represented to possess;

58. *region*: all donor centers, mobile units, processing centers, and distribution centers within each *ARC*-designated geographical region;

59. *retrievals*: recalls, market withdrawals, and other actions taken to remove *unsuitable blood* and/or *blood components* from the marketplace;

60. *SOPs*: *ARC* standard operating procedures, including, but not limited to, *BSDs*, *BSLs*, regional and local standard operating procedures, and any other written instructions used by *ARC* in connection with the collection, manufacture, processing, packing, holding, or distribution of *blood* and *blood components*;

61. *Summary Problem Reports*: reports to *ARC Biomedical Headquarters* by all *ARC regions* and *laboratories* describing all categories of *problems* that occurred since the last such report and all categories of *problems* that occurred prior to the last such report but that have not been fully corrected;

62. *suspected transfusion transmitted disease*: a clinically significant infection or infectious disease identified in a recipient of *blood* or of a *blood component* that may have resulted from transfusion and for which another, more likely cause is not apparent after an investigation;

63. *system (systemic) problem*: a *problem* that results from a defect in *ARC* policies, procedures, *equipment*, or supplies and affects either more than one *ARC region* and/or *laboratory*, or warrants corrective action which, when implemented, could affect more than one *ARC region* and/or *laboratory*;

64. *trend*: the recurrence or multiple contemporaneous occurrences of the same or similar *problems* in one or more than one *ARC region* and/or *laboratory*;

65. *unsuitable blood or blood components*: *blood* and/or *blood components* for which the actual or purported *purity* has or may have been compromised;

66. *utility programs*: all computer software programs designed for any computer system to identify *duplicate, discrepant, or invalid donor records*.

IV. INJUNCTIVE RELIEF: *ARC*; its President and Chief Executive Officer; the Executive Vice President and Chief Executive Officer, Biomedical Services; the Senior Vice President and Chief Operating Officer, Biomedical Services; the Vice President and Chief Operating Officer, Plasma Services, Biomedical Services; Director of Training, Biomedical Services; the Vice President and Chief Scientific Officer, Biomedical Services; the Chief Information Officer; the Senior Vice President, Quality and Regulatory Affairs, Biomedical Services; Customer Business Unit Vice Presidents, Biomedical Services; Regional and Laboratory Chief Executive Officers, Biomedical Services; and all of *ARC*'s other officers, agents, employees, attorneys, and those persons who have received actual notice of this Order and who are in active concert or participation with any of the foregoing persons, shall, within the time frames set forth below, establish, implement, and continuously maintain adequate methods, facilities, systems, and controls to ensure that *ARC* does not collect, manufacture, process, pack, hold, or distribute any article of drug as defined in 21 U.S.C. § 321(g), including any article of

blood, blood component, or other biological product as defined in 42 U.S.C. § 262, that is adulterated, within the meaning of 21 U.S.C. § 351(a)(2)(B); misbranded, within the meaning of 21 U.S.C. § 352(a) or 42 U.S.C. § 262(b); or otherwise in violation of the *FD&C Act*, the *PHS Act*, and regulations promulgated thereunder, including, but not limited to, 21 C.F.R. Parts 210-211 and Parts 600-680. Such methods, facilities, systems, and controls shall include, but not be limited to, the following:

A. **Management Controls.**

1. Within the time frames specified in this Order, *ARC* shall take steps necessary to ensure continuous compliance with this Order, *the law*, and *ARC SOPs*, including, but not limited to *BSDs*, *BSLs*, local operating procedures, and any other written instructions used by *ARC* in connection with the collection, manufacture, processing, packing, holding, or distribution of *blood* and *blood components*.

2. *ARC* shall establish, document, and continuously maintain managerial control over training and quality assurance in all *regions* and *laboratories*. Managerial control shall include continuous employment of a director of quality assurance and a director of training. In the event that either such director ceases to act in the aforesaid capacity, *ARC* shall, within 10 *days* after such cessation, appoint an interim director and shall notify FDA of such appointment. In the event that either director notifies *ARC* of an anticipated extended period of absence of more than 30 *days*, *ARC* shall within 10 *days* of such departure, appoint an acting director and shall notify FDA of such notification and appointment within 10 *days* of notification and appointment.

The director of quality assurance shall, by reason of his or her background, training, experience, and education, be qualified to establish, implement, and continuously maintain a QA/QC program to ensure that *blood* and *blood components* are collected, manufactured,

processed, packed, held, and distributed in compliance with *the law*, *ARC SOPs*, and the provisions of this Order. The director of training shall, by reason of his or her background, training, experience, and education, be qualified to establish, implement, and continuously maintain a training program to ensure that *ARC* personnel are properly trained, regularly evaluated to determine whether they are qualified to perform their assigned duties, and, when necessary, retrained. The duties and responsibilities of such persons shall include the following:

a. The director of quality assurance shall be responsible for all *ARC* Biomedical Services quality assurance functions including, but not limited to, ensuring the establishment, implementation, and continuous maintenance of comprehensive *QA/QC programs* as described in paragraph IV.B below. The director of quality assurance shall also be responsible for ensuring that specific quality assurance responsibilities are assigned to appropriate, qualified individuals at *ARC Biomedical Headquarters* and at each *region* and *laboratory* to accomplish the foregoing objectives within specified time frames. In addition to other reporting requirements set forth in this Order, the director of quality assurance shall report to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein all *FDA-483 observations* reported to *ARC* following inspection of *ARC* facilities, and conditions or practices described in compliance-related FDA correspondence issued to any *ARC* facility, within 5 *business days* of receipt.

b. The Quarterly Quality Assurance Report. Commencing with the date of entry of this Order, the director of quality assurance shall, in addition to other reports required under this Order, prepare and submit quarterly quality assurance reports in writing to *ARC senior management* and *ARC Biomedical Services senior management*, pursuant to paragraph XI herein, that completely and accurately: (i) describe the steps that have been and will be taken, with

specific dates for implementation of each step, to establish, implement, and continuously maintain the *QA/QC program*; and (ii) describe all unresolved *potential system (systemic) problems, system (systemic) problems, and trends* and their corrective action status; and (iii) assess whether *ARC* is in compliance with *the law, ARC SOPs, and this Order*.

c. In assessing compliance with *the law, ARC SOPs, and this Order*, the director of quality assurance shall evaluate all relevant information bearing upon these issues, including, but not limited to, *ARC Clarify reports* (and/or any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports, internal deviation reports, trends, adverse reaction reports, lookback cases, cases of suspected transfusion-transmitted disease, potential system (systemic) problems, system (systemic) problems, supply and equipment problems, FDA-483 observations, compliance-related FDA correspondence, internal and external audit reports, retrievals, and reports required elsewhere in this Order*. With respect to information suggesting possible non-compliance with *the law, ARC SOPs, or this Order*, the director of quality assurance shall assess, among other factors, whether the information includes evidence of potential public health risks, and whether the information is the same or similar to information that has come to *ARC's* attention through compliance-related FDA correspondence since entry of the May 12, 1993 Consent Decree.

d. The Director of Training shall be responsible for all biomedical training functions, including ensuring the establishment, implementation, and continuous maintenance of a comprehensive training program as described in, and within the time frames set forth in, paragraph IV.C below. The director of training shall also be responsible for ensuring that specific training responsibilities are assigned to appropriate, qualified individuals at *ARC*

Biomedical Headquarters and at each *region* and *laboratory* to accomplish the foregoing objectives.

e. The Quarterly Training Report. The director of training shall, commencing with the date of entry of this Order, prepare and submit quarterly progress reports in writing to *ARC senior management*, pursuant to paragraph XI herein, fully describing the steps that have been and will be taken, within specified time frames, to establish, implement, and continuously maintain the training program.

B. Quality Assurance/Quality Control Programs. *ARC* shall review, modify if necessary, and continuously maintain its comprehensive *QA/QC program* to ensure that *blood* and *blood components* are collected, manufactured, processed, packed, held, and distributed by *ARC* in compliance with *the law*, *ARC SOPs*, and this Order, and have the *purity* that they purport or are represented to possess. The *QA/QC program* shall include, among other things, the following programs and program assessments:

1. Problem Management SOPs. Within 90 days after entry of this Order, *ARC* shall establish and submit to FDA *SOPs* to detect, investigate, evaluate, correct, and monitor all *problems, trends, and system (systemic) problems*. The *procedures for SOP, report, and plan submission, review, and implementation* in paragraph VI of this Order apply, except that *ARC* shall have 90 days to implement the *Problem Management SOPs* once FDA notifies *ARC* that such *SOPs* appear adequate. If all of these *SOPs* are submitted to FDA in fewer than 90 days after entry of this Order, the unused days will be added to the implementation time of 90 days. Such *SOPs* shall contain, at a minimum, a risk assessment procedure, a procedure for the immediate identification and handling of urgent health hazards, and the following requirements:

a. Problem Management Systems Within Regions And Laboratories: The

Problem Management SOPs shall require that:

(i) The Quality Assurance Unit at *ARC Biomedical Headquarters* ensures that each *region* and *laboratory* has a *Problem Management System* that shall be used for logging, tracking and trending all *problems*. To identify all *problems* that the *Problem Management System* must address, each *region* and *laboratory* shall scrutinize, at a minimum, *ARC's Clarify reports* (and/or in any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports, internal deviation reports, trends, adverse reaction reports, lookback cases, cases of suspected transfusion-transmitted disease, potential system(systemic) problems, supply and equipment problem reports, FDA-483s, compliance-related FDA correspondence, internal and external audit reports, and retrievals.*

(ii) Each *ARC region* and *laboratory* shall, commensurate with the nature of the *problem*, promptly, thoroughly and adequately investigate, correct, and take steps to prevent the recurrence of each *problem*, and shall determine whether the *problem* resulted in the release for distribution of any *unsuitable blood or blood components* and, if so, whether consignees were notified. Each *region* and *laboratory* shall thoroughly and contemporaneously document each step it takes to investigate, correct, and prevent recurrence of each *problem*, and to determine if the *problem* resulted in the release for distribution of any *unsuitable blood or blood components*. Such documentation shall be maintained at the appropriate *region* or *laboratory*, shall reflect the identity of the regional or laboratory quality assurance staff member who reviewed and approved the *problem* investigation and the date on which that approval occurred, and shall be available for review by *ARC Biomedical Headquarters* and FDA.

(iii) Every 30 days, each ARC *region* and *laboratory* shall evaluate all *problems* that occurred after entry of this Order that the *region* or *laboratory* has not previously evaluated and fully corrected, as well as all *problems* that existed at the time this Order was entered that have not been fully corrected.

(iv) Summary Problem Reports. In addition, each ARC *region* and *laboratory* shall, every 30 days, submit a *Summary Problem Report* to ARC Biomedical Headquarters. The *Summary Problem Report* shall, at a minimum, include each category of *problems* that occurred since the last *Summary Problem Report* and all categories of *problems* that occurred prior to the last *Summary Problem Report* that have not been fully corrected. The first report shall include the categories of fully corrected *problems* that have been initially discovered after entry of this Order. The categories shall be specific enough to enable ARC Biomedical Headquarters to determine whether a *trend* exists. The *Problem Management SOP* shall set guidelines for categorizing *problems*, including, but not limited to, categories of *problems* that have not previously occurred at ARC. For each category of *problem*, the *Summary Problem Reports* must state, at a minimum: (A) the nature of the *problem(s)*, including, but not limited to, whether they constitute deviations from *the law*, *ARC SOPs*, or this Order; (B) the number of *problems* within the category; (C) the frequency with which those *problems* have occurred in that *region* or *laboratory* since entry of this Order or the prior 24 months, whichever is shorter; (D) whether the *problems* may be *potential system (systemic) problems*; (E) the potential or actual causes of the *problems*; (F) the status of the corrective actions; and (G) whether the *problems* could result, or have resulted, in the release for distribution of *unsuitable blood or blood components*, and if so, what follow-up action, such as *retrieval*, notification, and/or *lookback*, has been implemented.

Each *Summary Problem Report* shall also identify the *region* or *laboratory*, and the person completing the report, and shall state the date the report was completed.

(v) Specific persons within the Quality Assurance unit at *ARC Biomedical Headquarters* (to be identified by *ARC* in writing by position within 20 days after entry of this Order) shall be responsible for receiving all relevant information in the *Summary Problem Reports*, reviewing it for completeness, and maintaining it in an accurate, complete, and current log (all relevant information shall be entered in the log within 48 hours of receipt).

b. *Analysis and Investigation Group and Reports.* Specific persons within the Quality Assurance unit at *ARC Biomedical Headquarters* (to be identified by *ARC* in writing by position) shall be responsible for initiating, within specific time frames, and completing, within specific time frames not to exceed the due date for the next *Summary Problem Reports*, a thorough analysis and investigation of each *Summary Problem Report* submitted by each *region* and *laboratory* to discover *trends* and *system (systemic) problems*. Information contained in a *Summary Problem Report* that is classified as a significant risk, according to the *Problem Management SOPs*, shall be investigated and reported to *ARC Biomedical Services senior management* on an expedited basis. On a quarterly basis, this group shall complete the analysis and investigation of each *Summary Problem Report* submitted during the quarter and issue an *Analysis and Investigation Report* to *ARC Biomedical Services senior management* pursuant to paragraph XI herein. On a quarterly basis, *ARC Biomedical Service senior management* shall complete a summary of the most recent *Analysis and Investigation Report*, which summary shall be included in the Quarterly Quality Assurance Report described in paragraph IV.A.2.b.

(i) For each *trend* that the *Analysis and Investigation Group* discovers, the *Analysis and Investigation Report* shall, at a minimum, state: (A) the nature of the *trend*; (B) the

scope of the same or similar *trends* (number of *regions* and *laboratories* in which the same or similar *trends* have been reported and the number of same or similar *trends* within each *region* and *laboratory*); (C) the probable or actual causes of each *trend*; (D) for each *trend*, whether it or any of its causes poses a health risk such that the time frames related to the *Corrective Action Plan* and the *Corrective Action Monitoring Reports* should be shortened; (E) the steps taken to determine whether the *trend* may result or has resulted in the release for distribution of *unsuitable blood or blood components*; (F) whether the *trend* resulted in the release for distribution of *unsuitable blood or blood components*, and, if so, whether appropriate follow-up action, such as *retrieval*, notification, and/or *lookback*, is required; and (G) for each *trend*, whether it or any of its causes is a *system (systemic) problem*.

(ii) If the *Analysis and Investigation Group* determines that a *trend*, or any of its causes, is a *system (systemic) problem*, the *Analysis and Investigation Report* shall identify all systems that potentially or actually contributed to the *system (systemic) problem*, shall follow the established risk assessment procedures, and shall assign a risk factor to each *system (systemic) problem*.

(iii) If the trend is determined not to be a *system (systemic) problem*, the *Analysis and Investigation Group* shall document and explain in detail the reasons for that determination.

(iv) *Analysis and Investigation Reports* shall be signed and dated by the authors and by *ARC*'s most senior quality assurance officer or qualified temporary designee within 5 days of completion.

c. **Corrective Action Plans.** Specific persons (to be identified by *ARC* in writing by position), including, but not limited to, a representative from the Quality Assurance unit and

operations staff at *ARC Biomedical Headquarters* and at least one person from an *ARC region* or *laboratory* (representing the *regions* and *laboratories*, collectively), shall be responsible, within specific time frames not to exceed the due date for the next *Analysis and Investigation Report*, for reviewing and evaluating the *Analysis and Investigation Report*, and preparing a written *Corrective Action Plan* to address the findings set forth in the *Analysis and Investigation Report*.

(i) The *Corrective Action Plan* shall, at a minimum, state: (A) in detail all actions to be taken by *ARC Biomedical Headquarters* to prevent recurrence of each *system (systemic) problem*, including whether new *SOPs* must be written to address the *system (systemic) problem*; (B) whether all *regions* and *laboratories* have been notified in writing of the *system (systemic) problem*; (C) which persons shall be responsible for implementing each action described in the plan; (D) the precise time frame, based on the assigned risk factor, for completing each action; and (E) the *corrective action effectiveness criteria*, including, but not limited to, the precise length of time that the corrective action will be monitored to evaluate effectiveness.

(ii) The *Corrective Action Plan* shall also confirm or correct the determination in the *Analysis and Investigation Report* with regard to the *retrieval of unsuitable blood or blood components*, including expanding the scope of the *retrieval*, if necessary. The plan shall designate specific persons to monitor, at specific time intervals, *ARC's* plans, at the *region* and/or at *ARC Biomedical Headquarters*, to retrieve *unsuitable blood or blood components* from the marketplace.

(iii) The *Corrective Action Plan* shall be submitted to *ARC Biomedical Services senior management* pursuant to paragraph XI herein, within 48 hours of completion. On a quarterly basis, *ARC Biomedical Service senior management* shall complete a summary of all

ongoing *Corrective Action Plans* and all *Corrective Action Plans* that have been completed since the last summary, which summary shall be included in the Quarterly Quality Assurance Report described in paragraph IV.A.2.b.

d. *Corrective Action Monitors and Reports.* *Corrective Action Monitors*, identified by *ARC* in writing by position, shall be responsible for actively, carefully, and at specific time intervals, monitoring each *Corrective Action Plan* to ensure continuous effectiveness.

(i) The *Corrective Action Monitors*, at specified time frames (but no less frequently than every 30 days), shall file *Corrective Action Monitoring Reports* that: (A) clearly state whether or not the *Corrective Action Plan* is being properly and timely implemented, including details of *retrieval*, notification of consignee(s) and/or, if necessary, *lookback* investigation, whether each of the *corrective action effectiveness criteria* in the *Corrective Action Plan* is being met, and whether the plan is effective to prevent the recurrence of the *system (systemic) problems*; and (B) describe in detail any impediments or difficulties encountered that may prevent effective and timely implementation of the *Corrective Action Plan* and any changes necessitated thereby.

(ii) *Corrective Action Monitoring Reports* shall be signed and dated by the authors, and shall be provided to *ARC senior management and ARC Biomedical Services senior management* pursuant to paragraph XI herein within 48 hours of completion.

e. *ARC Biomedical Headquarters Review of Reports, Plans, and Correspondence.* Commencing with the date of entry of this Order, specific persons at *ARC Biomedical Headquarters* (to be identified by *ARC* in writing by position), including the quality assurance director, shall be responsible for, every 90 *days*:

- (i) reviewing all *Summary Problem Reports, Analysis and Investigation Reports, Corrective Action Plans, Corrective Action Monitoring Reports, ARC* internal and external audit reports, *FDA-483 observations*, and compliance-related FDA correspondence to identify any *problems, trends, and system (systemic) problems* that have not been detected, investigated, and effectively corrected within established time frames;
- (ii) assessing the public health risk of all unresolved *problems, trends, and system (systemic) problems* identified during this review;
- (iii) ensuring that all *problems, trends, and system (systemic) problems* identified during this review are promptly resolved;
- (iv) ensuring that all *ARC regions and laboratories* have been notified in writing of *system (systemic) problems*; and
- (v) reporting the results of the review in the quarterly quality assurance report as described in Paragraph IV.A.2.b to *ARC senior management and ARC Biomedical Services senior management* pursuant to paragraph XI herein.

2. Retrospective Review of Potential System (Systemic) Problems. Within 90 days after the entry of this Order, *ARC* shall complete a retrospective review of all *potential system (systemic) problems* reported by *ARC regions and laboratories* to *ARC Biomedical Headquarters* between August 1996 or the documented date of regional implementation of the *MACS*, whichever is later, and September 30, 2002. *ARC* shall ensure that effective corrective actions have been developed and implemented for all *system (systemic) problems*, and shall assess the effectiveness of all such corrective actions. Within 30 days after entry of this Order, *ARC* shall provide to FDA a written list showing the day on which each *region* implemented *MACS*.

Within 180 *days* of entry of this Order, *ARC* shall report in writing to FDA whether those corrective actions are effective and report the basis for each such determination. *ARC* shall assess the impact of each *system (systemic) problem* and each ineffective corrective action on *blood or blood component purity*, and take appropriate action, as required by *the law, ARC SOPs*, and this Order. All ineffective corrective actions for *system (systemic) problems* shall be reported, within 10 *days* of initial discovery, in writing to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to FDA. Detailed plans, including proposed time frames, to correct and prevent recurrence of each such *system (systemic) problem* shall, within 30 *days* of initial discovery, be provided to *ARC senior management* pursuant to paragraph XI herein and to FDA. *ARC* shall also report in writing to FDA all *blood and blood components* retrieved from the marketplace as a result of this review within 30 *days* after initiation of the retrieval.

3. Internal Audit System.

a. Within 30 days after entry of this Order, *ARC* shall review, modify as necessary, and thereafter continuously follow *SOPs* to conduct and document internal audits to ensure continuing compliance with all *laws* and *ARC SOPs*, including all *SOPs* created under this Order as they take effect. The *audit SOPs* shall require an evaluation of all collection (including, but not limited to, donor suitability), manufacturing, processing, packing, holding, and distribution systems that may affect the *purity of blood or blood components*, or *ARC's* compliance with *the law*, any *ARC SOP*, or any provision of this Order. Except as provided below, *ARC* shall also conduct comprehensive audits of each *region* and *laboratory* at least annually, or more frequently when demonstrated to be necessary. If, in FDA's judgment, more frequent audits are

necessary for any *region* or *laboratory*, FDA will notify *ARC* in writing. Upon receipt of such notice, *ARC* shall immediately increase audit frequency as specified by FDA.

b. The *SOPs* described in the preceding paragraph shall:

- (i) establish specific schedules for the frequency of each type of audit;
- (ii) establish priorities for resolving deficiencies discovered as a result of

audits;

(iii) require that audits be conducted with standardized forms that must be used by all personnel when conducting the audits, and that audits include the review of an adequate and representative number of relevant records selected using a defined sampling method, including but not limited to *Clarify reports* (and/or any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports*, *internal deviation reports*, *trends*, *adverse reaction reports*, *lookback cases*, cases of *suspected transfusion-transmitted disease*, *potential system (systemic) problems*, *system (systemic) problems*, supply and *equipment* problem reports, *FDA-483s* and compliance-related FDA correspondence specific to the facility being audited, *retrievals*, and *donor file checks*.

(iv) require accurate, complete, and contemporaneous entry of data and sign-off and dating by specifically designated, qualified *ARC* employees who conducted the audits and who can attest to the foregoing attributes of data entry;

(v) require that within 30 *days* after conclusion of the audit of each *ARC Biomedical Headquarters* system, and each *region* and *laboratory*, a list of all audit citations and a summary of all audit citations shall be reported to *ARC Biomedical Services senior management* pursuant to paragraph XI herein;

(vi) require that within 30 *days* after receipt of the audit report, the facility Chief Executive Officer shall review the audit data and, in consultation with the appropriate audit and quality assurance personnel, shall develop a plan of corrective action to remedy all *problems* identified in the audit reviews; the plan shall identify the corrective steps to be taken and provide specific time frames for completion of the steps; and the plan shall be submitted to *ARC Biomedical Services senior management* pursuant to paragraph XI herein,

(vii) specify that on a quarterly basis, the quality audit function shall include in the Quarterly Quality Assurance Report a summary of the results of the audit program and the corrective action taken to remedy identified problems;

(viii) require that all completed audit forms, summary reports, and written verification of corrective actions be kept on file for a period of ten years, and be made available as required in paragraph XV herein to FDA for review and copying upon written request by FDA; and

(ix) require that as part of the audit review process *ARC* shall annually reassess the audit process to ensure that there are an adequate number of qualified personnel and funds to conduct audits to identify possible non-compliance with *the law, ARC SOPs, or this Order*.

4. Computer Systems and Databases.

a. *ARC* shall:

(i) within 30 *days* after entry of this Order, identify and list each *ARC* computer system used in *ARC Biomedical Headquarters* and each *region* and *laboratory* to collect, manufacture, process, pack, hold, and distribute, and otherwise dispose of, *blood* or *blood components*;

(ii) within 180 *days* after entry of this Order: (a) identify and list, for each such currently existing system, every *computer software assessment* of such systems (including Blood Services quality and regulatory assessment audits, FDA inspections, and any external audit) performed since the date of implementation of *MACS*, *i.e.* August 1996, bearing on whether the computer systems and automated databases completely and accurately record, maintain, and report information in compliance with *the law*, *ARC SOPs*, and this Order, including, but not limited to, all *utility programs* and *DDRs* to determine whether they will repeatedly and reliably accomplish results that are in compliance with *the law*, *ARC SOPs*, and this Order; and (b) report to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein its conclusions regarding whether each system will repeatedly and reliably accomplish results that are in compliance with *the law*, *ARC SOPs*, and this Order;

(iii) within 30 *days* after entry of this Order, retain an independent consultant to review all *internal deviation reports*, *biological product deviation reports*, *computer software defect reports*, enhancement requests, and any other reports related to the *NBCS*, the *NDDR*, the *DMS*, the Nucleic Acid Testing Automated System, and any other *computer software* used in the computer systems identified pursuant to subparagraph (4)(a)(i) above. The review shall be performed to identify *computer software defects* that may affect the *purity of blood* and *blood components* and for which the use of manual workarounds may be appropriate. *ARC* shall perform a risk assessment to prioritize development and implementation of corrective actions and, when necessary, manual workarounds for each *computer software defect* identified during this review. The consultant shall then review *ARC's* risk assessment for each corrective action and manual workaround to ensure appropriate prioritization of implementation.

(iv) within 90 *days* after completion of the *computer software assessment* required in paragraph (iii) herein, ensure that such corrective actions and manual workarounds have been developed and implemented and comply with *the law*, *ARC SOPs*, and the Order, so that *ARC* will consistently collect, manufacture, process, pack, hold, and distribute *blood* and *blood components* that have the *purity* they purport or are represented to possess. Within the same 90 *day* time frame, for corrective actions involving changes to *computer software* systems, *ARC* shall ensure that such changes are identified and an implementation plan established that accounts for all 510(k) clearances required and identifies specific implementation timeframes based on the safety risk presented and nature of the design and validation activities required. *ARC*, through its consultant, shall report in writing the status of these workarounds and corrections to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to FDA;

(v) within 180 *days* after entry of this Order, report on the status of whether or not all computer system and automated database defects related to complying with *the law*, *ARC SOPs*, and this Order that were identified in such *computer software assessments* have been corrected and, if not, provide the timeline for the implementation plans required by paragraph (iv); and

(vi) within 180 *days* after entry of this Order, submit the foregoing list and report in writing to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to FDA.

b. Additional Measures for Computer Software Defects. Whenever a *computer software defect* and/or automated database defect that may adversely affect the *purity of blood*

and *blood components* collected, manufactured, processed, packed, held, and distributed by *ARC* is identified, *ARC* shall, in addition to following the procedures described in this Order:

(i) notify in writing, as soon as practicable, all affected *ARC* facilities of the *computer software defect* and/or automated database defect;

(ii) implement, as soon as practicable but in no event later than 30 *days* after identification, a workaround for each such *computer software defect* and/or automated database defect;

(iii) promptly take all steps necessary to ensure that each workaround is consistently followed; and

(iv) within 90 *days* of identification, correct each such *computer software defect* and/or automated database defect to ensure the *purity* of *blood* and *blood components* and compliance with *the law*, *ARC SOPs*, and this Order. For any such *computer software defect* and/or automated database defect that cannot be corrected within 90 *days* of identification, *ARC* shall notify FDA in writing of the *computer software defect* and/or automated database defect, a proposed time frame for correction, and a justification for the time frame.

5. Utility Programs.

a. Review by Independent Consultant. Within 30 *days* after entry of this Order, *ARC* shall retain an independent consultant, who shall complete the following activities within 90 *days* after entry of this Order:

(i) review all *utility programs* to determine the adequacy of the programs to reliably and accurately identify any and all database inconsistencies that may cause *duplicate*, *discrepant*, or *invalid donor records*;

(ii) review and, as necessary, revise *SOPs* to ensure that such programs are executed as frequently as necessary at *ARC Biomedical Headquarters* and in each *region*;

(iii) review *SOPs* for resolving any and all database inconsistencies, and *duplicate, discrepant, or invalid donor records* identified by the *utility programs*;

(iv) review *SOPs* to ensure that all new or revised *utility programs* will be validated prior to implementation; and

(v) prepare a written record of each review that shall be maintained by *ARC*.

b. **Report by Independent Consultant.** Within 120 *days* after entry of this Order, *ARC's* independent consultant shall report in writing to *ARC senior management* pursuant to paragraph XI herein and to FDA whether the review conducted in accordance with the preceding paragraph has been completed at *ARC Biomedical Headquarters* and in each *region* and whether those *utility programs* and *SOPs* comply with *the law, ARC SOPs*, and this Order and ensure the *purity of blood and blood components* collected, manufactured, processed, packed, held, and distributed by *ARC*. If, in FDA's judgment, more frequent runs of the *utility programs* are necessary in *ARC Biomedical Headquarters* or any *region*, FDA will notify *ARC* in writing and *ARC* shall immediately increase the frequency of the *utility programs* as specified by FDA.

c. **Corrections.** In the event *ARC* or FDA determines that any *utility program* or related procedure is inadequate to reliably and accurately identify *duplicate, discrepant, or invalid donor records*, *ARC* shall promptly correct the program or related procedure, or develop and implement new programs or procedures, and re-run the programs; *ARC* shall, within 10 *days* of identification, notify FDA in writing of such deficiencies and of the actions taken and proposed to be taken to correct the deficiencies.

d. Monitoring SOPs. Within 60 *days* after entry of this Order, *ARC* shall establish, implement, and thereafter continuously follow *SOPs* to review, no less frequently than annually, and revise as necessary its *SOPs* for monitoring the use of *utility programs*.

6. Duplicate, Discrepant, and Invalid Donor Records.

a. Within 30 *days* after entry of this Order, *ARC* shall review, modify as necessary, and thereafter continuously follow *SOPs* that shall include specific time frames, to: (i) ensure that all *regions* identify *duplicate, discrepant, and invalid donor records*, identify and document the causes for each such occurrence, investigate and correct such records, document all such corrections, evaluate the causes for such occurrences to determine whether system changes in any *region's SOPs* are necessary or appropriate, and conduct a review to determine whether *unsuitable blood and blood components* have been released for distribution or distributed; (ii) ensure that all *regions* continuously adhere to the foregoing *SOPs* and notify *ARC Biomedical Headquarters* on a monthly basis of any such *duplicate, discrepant, or invalid donor record* or of the failure to adhere to such *SOPs*; and (iii) prevent the release for distribution of *unsuitable blood and blood components* associated with *duplicate, discrepant, or invalid donor records*.

b. If at any time after entry of this Order, *ARC Biomedical Headquarters* learns that any *region* has not adequately investigated and completely corrected *duplicate, discrepant, or invalid donor records*, *ARC* shall, within 30 *days* after learning of the failure, either (i) ensure that all such inadequately investigated or uncorrected records for the *region* have been reviewed and corrected, that all applicable *ARC SOPs* have been complied with, that all *unsuitable blood or blood components* have been identified and quarantined or retrieved, and that appropriate training has been provided to, or other personnel actions have been taken regarding, each person associated with the failure; or (ii) if such actions cannot be completed within the 30 *day* period,

submit to FDA a written explanation for failure to meet that time frame and implement a plan that establishes specific time frames to complete each of the foregoing steps. Within 45 *days* after learning of any *region's* failure to have adequately investigated and completely corrected *duplicate, discrepant, or invalid donor records*, ARC's director of quality assurance shall notify FDA in writing of the details of the failures, all remedial actions that have been or will be taken regarding inadequate investigations or corrections, and the time frames for completing such actions. When all such *duplicate, discrepant, or invalid donor records* have been fully corrected and all remedial actions have been completed, the director of quality assurance shall so notify FDA in writing.

7. **Addition of Blood Centers to National Biomedical Computer System.** Prior to the addition or integration of any blood center to the *NBCS*, ARC shall retain the services of an independent consultant to review and evaluate the adequacy of conversion and test methodology and plans. Prior to such addition or integration, ARC shall, through its independent consultant, certify in writing to FDA that the conversion and test methodology and plans are adequate to ensure identification of all *duplicate, discrepant, or invalid donor records*. Within 60 *days* of conversion, ARC shall identify, investigate, and resolve all such records, and report in writing to *ARC senior management* pursuant to paragraph XI herein and to FDA whether all *duplicate, discrepant, and invalid donor records* have been so resolved. If ARC cannot identify, investigate, and resolve all such records within 60 *days* of conversion, ARC shall immediately notify FDA in writing of the reasons for the inability to do so, and submit a plan and schedule that ensures resolution of *duplicate, discrepant, or invalid donor records* within 120 *days* of conversion. If the presence of unresolved *duplicate, discrepant, or invalid donor records* has resulted in the distribution of *unsuitable blood or blood components*, consignees and FDA shall

be immediately notified in writing and affected *blood* and *blood components* shall be retrieved by *ARC*, when appropriate under the standards established by *the law*, *ARC SOPs*, *CGMP*, and this Order.

8. *Computer Software.*

a. Within 30 *days* after entry of this Order, *ARC* shall retain an independent consultant to establish and implement a plan to assess the integrity of *ARC's blood establishment computer software*, and within 270 *days* of entry of this Order, *ARC* shall complete such *computer software assessment*. The *computer software assessment* plan shall set forth steps necessary for *ARC* to identify all computer software defects in the *blood establishment computer software* that may affect the *purity* of *blood* or *blood components*. The plan shall include a review of relevant records including, but not limited to, *ARC Clarify reports* (and/or any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports*, *internal deviation reports*, *trends*, *adverse reaction reports*, *lookback cases*, cases of *suspected transfusion-transmitted disease*, *potential system (systemic) problem reports*, *system (systemic) problems*, supply and *equipment* problem reports, *FDA-483s*, compliance-related *FDA* correspondence, internal and external audit reports, and *retrievals*. The plan shall also include a risk assessment for each *computer software defect* and a process for establishing the importance of each such *computer software defect* and the priority for correcting it. Within 30 *days* following implementation of the plan and completion of the *computer software assessment*, *ARC* shall list all types of *computer software defects* identified and shall report in writing the results of the *computer software assessment* to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to *FDA*.

b. Within 90 *days* of completion of the *computer software assessment* described in the preceding paragraph, *ARC* shall: (i) develop detailed design specifications to correct all *computer software defects* that were identified during the assessment of *ARC's blood establishment computer software*, and (ii) report to FDA whether such specifications have been developed. For any such specifications that cannot be developed within 90 *days* of completion of the assessment, *ARC* shall notify FDA in writing with a proposed time frame for completion of the specifications.

c. Within 60 *days* of completion of the detailed design specifications required in the preceding paragraph, *ARC* shall develop and submit to the FDA a schedule to:

(i) develop the *computer software* code as specified in the detailed design specifications;

(ii) install such code in the test database system;

(iii) retain the services of an independent consultant and work collaboratively with that consultant to develop verification, validation, and testing plans, including regression testing, to ensure that the *computer software* corrections will accurately and reliably produce results that comply with *the law, ARC SOPs*, and this Order; and

(iv) complete the verification, validation, and testing of the *computer software* corrections.

d. Within 30 *days* after completion of the verification, validation and testing of the *computer software* corrections, *ARC* shall provide a written report summarizing the results of such testing to *ARC senior management* pursuant to paragraph XI herein and to FDA. *ARC* shall, within the same 30 *day* time frame, through its independent consultant, report in writing to FDA whether the results demonstrate that the *computer software* corrections will consistently

and reliably produce results that comply with *the law*, *ARC SOPs*, and this Order. If *ARC* and the consultant cannot report that the results so demonstrate within the time frame established in this paragraph, *ARC* shall, through its consultant, submit to FDA a written detailed explanation of its failure to do so, and propose and justify a time frame within which the *computer software* will consistently and reliably produce results that comply with *the law*, *ARC SOPs*, and this Order.

e. Within 120 *days* of reporting to FDA that the *computer software* corrections will repeatedly and reliably produce results that comply with *the law*, *ARC SOPs*, and this Order, and, if applicable, of receiving premarket clearance for any *computer software* corrections requiring a submission in accordance with 21 U.S.C. § 360(k) and, if applicable, of receiving any other required FDA approvals, *ARC* shall complete implementation of the *computer software* corrections in *ARC Biomedical Headquarters*, and in all *regions* and *laboratories*. If *ARC* cannot complete implementation within 120 *days*, it shall submit an implementation plan with proposed timelines for completion to the FDA for approval.

f. Upon the date of entry of this Order: (i) all premarket submissions made by *ARC* to FDA in accordance with 21 U.S.C. § 360(k) for *blood establishment computer software* shall be traditional submissions, not abbreviated or special submissions unless *ARC* requests, and FDA grants permission for an abbreviated or special submission for a particular release; and (ii) *ARC* shall retain an independent consultant to review such submissions, prior to submission to FDA, for compliance with *the law*, *ARC SOPs*, and the Order. After three (3) years of entry of this Order, *ARC* may request and FDA may grant relief from the requirement to retain an independent consultant to review such submissions.

9. Records Management Systems.

a. SOPs. Within 60 *days* after entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* for a records management system, both in *ARC Biomedical Headquarters* and in all *regions* and *laboratories* to ensure maintenance of records relating to the collection, manufacture, processing, packing, holding, and distribution of *blood* or *blood components* that are required by *law*, *ARC SOPs*, or this Order.

b. SOP Requirements. The *SOPs* described in the previous paragraph shall ensure:

(i) that *ARC* can promptly locate and track *blood* and *blood components* within specified time frames;

(ii) that, to the extent not provided in other *ARC SOPs*, each step in the collection, manufacture, processing, packing, holding, and distribution of *blood* or *blood components*, including the identity of the people performing each step and the date on which each step is performed, is recorded completely, accurately, and concurrently with the performance of the step;

(iii) that records can be readily located and are accessible; will not be lost or, except as provided by *law* or *ARC SOPs*, destroyed or altered; and will be provided to FDA as required in paragraph XV herein;

(iv) that only authorized personnel have access to records containing confidential information; and

(v) that data are accurately entered, stored, and retrievable, and that data entry error identification and follow-up procedures have been implemented and are continuously followed.

10. National Donor Deferral Register. Within 90 *days* of entry of this Order, *ARC*

shall:

a. conduct a retrospective review of *donor file checks* in each region, beginning with August 1996 or the documented date of regional implementation of *MACS*, whichever is later, which shall, at a minimum, include verification that:

(i) every *regional* submission of donors to *ARC Biomedical Headquarters* was complete and accurate;

(ii) every *regional* submission of donors was listed in a confidential donor list in a *donor file check* procedure;

(iii) the donors were accurately added to the *NDDR*; and

(iv) all *regions* documented their search for the donors requiring a search;

b. establish and implement *SOPs* to update, on a monthly basis, the *NDDR* and to disseminate, on a monthly basis, *donor file checks*;

c. ensure that *donor file checks* are completed by each *region* on a monthly basis;
and

d. report in writing to FDA whether the *NDDR* contains an accurate and complete list of all *ARC* nationally deferred donors from each *region*, and whether the revised *SOPs* have been established, disseminated, implemented, and are being followed.

In the event that *ARC* fails to complete the review and report in writing to FDA that the *NDDR* contains an accurate and complete list of all *ARC* nationally deferred donors from each *region*, FDA may assess a penalty of up to \$10,000 per *day* for each *day* following *ARC's* failure to submit the foregoing report until such review is complete and such report is provided to FDA. In the event that, after *ARC* reports to FDA that it completed the retrospective review and that the

NDDR contains an accurate and complete list of all *ARC* nationally deferred donors from each *region*, FDA determines that the retrospective review was not adequate, and that consequently one or more *ARC* donors have been improperly omitted from the *NDDR* who should have been included prior to the date on which *ARC* completed its retrospective review, FDA shall so notify *ARC* in writing and shall provide the basis for its determination. In such event(s), FDA may assess a penalty of up to \$10,000 for each such omitted donor. However, if *ARC* has discovered the omitted donor(s), and corrected the *NDDR* to include the omitted donor(s), and has reported the correction to FDA before FDA has issued an FDA-482 (Notice of Inspection) commencing an inspection or learned of the omission(s) through other means, then *ARC* shall pay no fine. *ARC* shall report each such *NDDR* omission and correction to FDA in writing within 5 *days* of discovery.

11. Donor Registration.

a. Within 60 *days* after entry of this Order, *ARC* shall: (i) assess data entry operations during which donor registration information changes are recorded in the *ARC* database, and (ii) establish and implement *SOPs* to ensure selection of correct donors and consistently accurate entry of donor registration information. Such donor registration *SOPs* shall include, but not be limited to, requirements that a qualified supervisor perform an independent review of all information changed during the donor registration process prior to labeling of product. To evaluate the effectiveness of the *SOPs*, *ARC* shall, for 180 *days* after implementation of the *SOPs*, track all data entry errors related to donor registration information changes and report in writing the results of such tracking to *ARC Biomedical Services senior management* pursuant to paragraph XI herein.

b. *ARC* shall:

(i) within 60 *days* after entry of this Order, review, modify if necessary, and thereafter continuously maintain *SOPs* to document donor registration data entry errors that may result in incorrect donor selection or failure to appropriately place a donor in a hold category;

(ii) within 90 *days* after entry of this Order, retain and work with a consultant to develop a plan to assess the integrity of donor registration information in the donor registration database, and to identify whole *blood* units that have been associated with incorrect donors. The plan shall be submitted to FDA, within 150 *days* after entry of this Order, in accordance with the *procedures for SOP, report, and plan submission, review, and implementation* in paragraph VI. Within 30 *days* of receipt of FDA's determination that the assessment plan appears adequate, *ARC* shall perform the assessment and *ARC* shall report in writing the results of the assessment to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein; and

(iii) as soon as practicable investigate each instance of incorrect donor association identified pursuant to the preceding paragraph, assess the effect of the incorrect donor association on the *purity of blood* and *blood components*, and initiate appropriate corrective action including, but not limited to, *internal deviation reports, biological product deviation reports, lookback investigations, retrievals*, and training.

12. *Lookback Investigations*. Within 30 *days* after entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously follow *SOPs* that require appropriate *lookback* investigations. These *SOPs* shall include specific time frames and instructions for

determining when a *lookback* investigation is appropriate and specify how to conduct a *lookback* investigation.

13. HIV p-24 Antigen Confirmatory Testing. Upon entry of this Order, *ARC* shall initiate a retrospective review of all HIV p-24 antigen *confirmatory testing* to identify all instances of *ARC*'s failure to follow manufacturer test directions. This retrospective review shall be completed within 30 *days* after entry of this Order, and the results shall be reported in writing to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein. *Lookback* investigations shall be immediately initiated, when required by *the law* or *ARC SOPs*, and shall be completed within time frames established therein.

14. Donor Safety. Upon entry of this Order, *ARC* shall: (a) immediately cease use of the ear stick method of collecting a donor *blood* sample to determine hematocrit or hemoglobin, and (b) within 30 *days*, establish, implement, and thereafter continuously maintain *SOPs* that include (i) scientifically sound and appropriate *blood* collection and test methods that ensure donor safety and the *purity of blood* and *blood components* including, but not limited to, methods to determine hematocrit or hemoglobin accurately; and (ii) a formal process that requires *ARC* physicians and scientists to raise concerns to *ARC senior management* and *ARC Biomedical Services senior management* in accordance with the procedures set out in paragraph XI, regarding donor and recipient safety.

15. Labeling.

a. Within 90 *days* of entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* to ensure accurate labeling of all *blood* and *blood components*, including, but not limited to, accurate labeling for *CMV* test results, verification of label accuracy by the employee performing that function and confirmation of label accuracy

either by electronic verification or by a second employee through a comparison of computer system information or other source documents with the information on the labeled product.

b. Within 30 *days* of entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* requiring labeling issuance controls, in accordance with 21 C.F.R. § 211.125.

c. Within 30 *days* after entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* to prevent incorrect product expiration dating. When expiration dates are calculated manually, the method for such calculation shall be set forth in an *SOP* which shall include a requirement that the accuracy of the expiration dating be documented and confirmed in writing by a second employee.

d. Upon entry of this Order, *ARC* shall, on a weekly basis, review *ARC Clarify reports* (and/or any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports, internal deviation reports, trends, recipient adverse reaction reports, lookback cases, cases of suspected transfusion-transmitted disease, potential system (systemic) problems, system (systemic) problems, supply and equipment problem reports, FDA-483s, compliance-related FDA correspondence, internal and external audit reports, retrievals, and reports required elsewhere in this Order that pertain to labeling including, but not limited to, reports of incorrect labeling of CMV results and incorrect product expiration dating.* *ARC* shall continue to perform this weekly review until eight (8) consecutive weekly reports demonstrate the effectiveness of the corrective actions implemented in accordance with subparagraphs a and b of this paragraph IV.B.15. Thereafter, *ARC* shall, no less frequently than once per year, conduct such reviews on a weekly basis for a four consecutive week period or until such reviews show continuous compliance for four consecutive weeks. *ARC* shall report in

writing the results of the reviews in the quarterly quality assurance report submitted to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein.

16. *Equipment Validation and Equipment Qualification.*

a. Within 30 *days* after entry of this Order, *ARC* shall submit a report on work conducted in conjunction with a consultant to establish an adequate master validation plan to ensure that all *equipment* that requires validation and/or qualification used to collect, manufacture, process, pack, hold, or distribute *blood* or *blood components*, including new, existing, and relocated *equipment* in all *regions* and *laboratories*, is identified and validated and/or qualified, as appropriate. That report shall be reviewed by qualified quality assurance personnel and shall be submitted to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to FDA.

b. This report shall state whether: (i) the master validation plan has been implemented, (ii) all *equipment* has been validated and/or qualified, as appropriate, for use in accordance with manufacturer instructions, (iii) *equipment validation* and/or *equipment qualification* demonstrated that *equipment* will consistently operate within established limits and tolerances, and (iv) *equipment validation* and/or *equipment qualification* has been performed in such a manner as to ensure the *purity* of *blood* and *blood components* and to prevent the release for distribution of *unsuitable blood* or *blood components*.

Within 30 *days* after entry of this Order, *ARC* shall first validate and/or qualify all critical *equipment* and *equipment* that has not been previously validated and/or qualified. If *ARC's* report to FDA states that it has not implemented a master validation plan within the required 30 *day* time frame, *ARC* shall provide justification and propose new time frames for completion of

implementation. If *ARC* reports that all *equipment* has not been validated and/or qualified within the required 30 *day* time frame, *ARC* shall provide justification, identify each unvalidated and/or unqualified piece of *equipment* and propose new time frames for completion.

17. Inventory Management.

a. Inventory SOPs. Within 30 *days* of entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* requiring the *regions* to (i) perform, no less frequently than daily, inventory reconciliation by unit number of all quarantine locations at all facilities; (ii) perform, no less frequently than weekly, reconciliation of all other inventory locations at all facilities except in-process locations; (iii) perform, no less frequently than monthly, inventory reconciliation of all frozen red cell locations; (iv) document each time a unit of *blood* or a *blood component* is not found or is found in a location other than its assigned location; (v) perform, no less frequently than quarterly, inventory reconciliation, by carton, at the Louisville, Kentucky plasma storage facility; and (vi) notify FDA in writing within 5 *business days* after a *region* has failed to locate any *blood* or *blood component* within 72 hours of the time that the *region* initially learned that such *blood* or *blood component* was not in its assigned location.

In addition, a second individual shall verify that each of the foregoing quarantine and inventory reconciliation activities was performed according to *SOPs*, and that *unsuitable blood* or *blood components* have been electronically quarantined, and shall inspect the physical quarantine location to ensure that the units of *unsuitable blood* or *blood components* have been placed in that location. *ARC* shall monitor the effectiveness of the inventory *SOPs* and within 60 *days* after implementation of the *SOPs*, report in writing to FDA whether inventory is being managed in accordance with *the law*, *ARC SOPs*, and this Order. In the event that *ARC* reports

to FDA, or that FDA determines, that inventory is not being managed in accordance with *the law, ARC SOPs, or this Order*, FDA may so notify *ARC*. Such notification shall constitute an adverse FDA determination subject to the *penalty, review, and appeal procedures* set forth in paragraph IX of this Order. Such a notification may also include a requirement that *ARC* increase the frequency of inventory reconciliations or otherwise modify its inventory management *SOPs*.

In addition, FDA may assess a penalty of up to \$1,000 for each unit of *blood* and each *blood component* that *ARC* fails to locate within 72 hours after a *region* initially learned that such *blood or blood component* was not in its assigned location. Within 5 *business days* thereafter, *ARC* shall notify FDA in writing of each such lost unit of *blood or blood component* and if such timely notification is not made, FDA may assess a penalty of up to \$10,000 for each such notification failure.

b. **Quarantine SOPs.** Within 30 *days* after entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* to ensure: (i) that each *ARC* facility does not initiate the labeling of *blood and blood components*, or the packing of plasma for further manufacture, until that facility has physically and electronically quarantined each unit of *unsuitable blood or blood components* within the batch of components to be labeled or packed; (ii) that each *ARC* facility has established *SOPs* that identify separate physical location(s) which are exclusively dedicated to the quarantine of *blood and blood components*; (iii) that subsequent to labeling, each unit of *blood* and each *blood component* determined to be unsuitable is physically and electronically quarantined promptly; and (iv) that prior to initiating labeling of *blood and blood components* in each *ARC* facility, the correctness and completeness

of quarantine activities performed by individuals in the facilities, respectively, shall be verified and certified in writing by a second individual.

c. Returned Blood Components. Within 30 days after entry of this Order, ARC shall review, modify if necessary, and thereafter continuously maintain SOPs requiring that each returned unit of *blood* and *blood component* be physically and electronically quarantined until such time as it has been assessed and a determination of suitability for re-release is complete. Re-release of any returned unit of *blood* and *blood component* for distribution shall require prior written approval by a qualified supervisor. In the event a suitability assessment determines that a unit of *blood* or *blood component* cannot be re-released, the reasons shall be documented, and an assessment of any related *blood* or *blood components* shall be performed promptly to determine whether the suitability of those units of *blood* or *blood components* may have been similarly compromised. The assessment shall be documented promptly and the appropriate measures taken to retrieve the additional affected *blood* or *blood components*.

d. Quarterly Assessment of Quarantine SOPs. Within 30 days after entry of this Order, ARC shall review, modify if necessary, and thereafter continuously maintain SOPs requiring that all *internal deviation reports*, *biological product deviation reports*, *system (systemic) problems*, *FDA-483 observations*, and compliance-related FDA correspondence be reviewed quarterly to assess the effectiveness of quarantine procedures and to ensure that quarantine SOPs are being followed in all *regions* and *laboratories*. The results of such quarterly reviews shall be included by the director of quality assurance in the quarterly quality assurance report submitted to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein.

e. Storage. Within 120 *days* after entry of this Order, *ARC* shall assess the facilities used to store *equipment*, supplies, *blood* and *blood components* in all *regions* to ensure that they are adequate to maintain proper storage conditions and inventory control, to prevent *blood* and *blood component* loss, and to prevent release for distribution of *unsuitable blood or blood components*. Within 15 *days* after completing the assessment, *ARC* shall report, in writing, to FDA the results of the assessment and submit to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein, the assessment, along with an inventory of storage facilities and *equipment* in each *region* and *laboratory*. Within 270 *days* after entry of this Order, *ARC* shall establish a plan for, and implement, corrective action for all deficiencies identified in the assessment and monitor the effectiveness of such corrective action.

f. Biohazardous Waste Disposal SOPs. Within 30 *days* after entry of this Order, *ARC* shall review, modify if necessary, and thereafter continuously maintain *SOPs* that require each *region*, prior to release for destruction of *blood* or *blood components* to any biohazardous waste contractor, to confirm and document that each such unit of *blood* or *blood component* is designated for disposal. Each *ARC region* shall also ensure that all units of *unsuitable blood or blood components* have been designated for disposal or, as appropriate, for further manufacturing or research.

18. Assessment of Programs.

a. Overall Assessment of QA/QC Program. Within 120 *days* after entry of this Order, *ARC* shall complete an assessment of the *QA/QC program* to ensure that it is comprehensive and that all *ARC blood* and *blood components* are collected, manufactured, processed, packed, held, and distributed in compliance with *the law*, *ARC SOPs*, and this Order

and have the *purity* they purport or are represented to possess. The results of such assessment shall be reported, in writing, to *ARC senior management* pursuant to paragraph XI herein, and to the *ARC Biomedical Services Committee* and the Audit Committee of the *ARC* Board of Governors within 10 *days* of completion.

b. **Retrospective Review of FDA-483 Observations.** *ARC* shall, with respect to each *FDA-483 observation* identified during FDA inspections of *ARC Biomedical Headquarters*, each *ARC region* and *laboratory* since the first implementation of *MACS* in August 1996, or the date of *regional* implementation of *MACS*, whichever is later, review each element of the *QA/QC program* and each system, process, and control used to collect, manufacture, process, pack, hold, and distribute *blood* or *blood components*: (i) to ensure that the *FDA-483 observations* that *ARC* determines to be *problems* have been corrected and that appropriate steps have been taken to prevent their recurrence; and (ii) to ensure continuous compliance with *the law*, *ARC SOPs*, and the provisions of this Order. This review shall be in addition to any other reviews or procedures required by this Order. Within 135 *days* after entry of this Order, *ARC* shall prepare a written report of this review and, within 10 *days* of its completion, submit it to *ARC senior management* pursuant to paragraph XI herein, and to FDA. This report shall include a summary of all *problems* and, if the *problems* are not corrected, the report shall include a written plan and timelines to correct the *problems*.

c. **Annual Quality Assurance Report.** Within one year after entry of this Order, and no less frequently than annually thereafter (*i.e.*, in the fourth quarterly quality assurance report (*see* paragraph IV.A.2.b)), with respect to each new or unresolved *problem* reported to *ARC*, including any *problem* that FDA has, after entry of this Order, brought to *ARC's* attention in writing, *ARC* shall review each element of the *QA/QC program* and each system, process, and

control used to collect, manufacture, process, pack, hold, and distribute *blood* and *blood components* that may affect the *purity* of such products: (i) to ensure that each of the *problems* has been corrected to prevent its recurrence; and (ii) to ensure continuous compliance with *the law, ARC SOPs*, and the provisions of this Order. *ARC* shall prepare written reports of these reviews and submit them to *ARC senior management* and *ARC Biomedical Services senior management*, pursuant to paragraph XI herein, and to the *ARC Biomedical Services Committee*, the Audit Committee of the *ARC* Board of Governors, and FDA, no later than December 15 of each year.

d. Review to Identify Use of Obsolete SOPs. Within 10 *days* after entry of this Order, *ARC* shall begin a comprehensive review of all *SOPs* to identify all obsolete *SOPs* that are used in *ARC Biomedical Headquarters*, and in any *region* or *laboratory*. The review shall be completed within 135 *days* after entry of this Order. Any use of an obsolete *SOP* identified during the review shall be immediately discontinued and, within 10 *days* of identification, the current *SOP* shall be implemented and *ARC* shall document training of affected staff. *ARC* shall ensure that use of all obsolete *SOPs* has been discontinued in all *regions* and *laboratories*. Results of the reviews shall be documented, dated, and signed by the persons performing the reviews, and reported in writing to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein. Thereafter, *ARC* shall, at least annually, review *SOPs* used in *ARC Biomedical Headquarters* and each *region* and *laboratory* to ensure adequacy of those corrective actions and to ensure that no obsolete *SOPs* are in use.

e. Assessment of the Impact of Obsolete SOPs on Purity. Within 5 *days* of identification of any use of obsolete *SOPs* described in paragraph IV.B.18.d above, *ARC* shall follow its *SOPs* for *blood* and *blood component retrieval* to assess the effect on *purity* of *blood*

and *blood components* that were manufactured using an obsolete *SOP*. If *ARC* determines that the *purity* of any *blood* or *blood component* may have been adversely affected by use of an obsolete *SOP*, it shall take appropriate action to *retrieve* any *unsuitable blood or blood components*.

f. Review to Ensure Consistency With Equipment and Test Kit Manufacturer

Directions. Within 60 *days* after entry of this Order, *ARC* shall retain the services of an independent consultant to review all *ARC SOPs* relating to test kits, reagents (except those used in clinical laboratory testing), *equipment*, and supplies used in the collection, manufacture, processing, packing, holding, and distribution of *blood* or *blood components*, and that may affect the *purity* of *blood* or *blood components*, to ensure *ARC*-wide consistency with manufacturer directions for use. Any deviation from manufacturer directions for use not previously approved in writing by FDA shall be corrected at all facilities within 10 *days* of identification and reported within 5 *days* of correction to *ARC Biomedical Services senior management* pursuant to paragraph XI herein. Within 90 *days* after entry of this Order, *ARC* shall complete this identification, review, and correction process for the *laboratories* and report in writing to FDA regarding the status of these efforts, including whether any *blood* or *blood component* was adversely affected by a deviation and, if so, whether all such units of *blood* and *blood components* have been retrieved. Within 180 *days* after entry of this Order, *ARC* shall complete this identification, review, and correction process for the *regions* and report in writing to FDA regarding the status of these efforts, including whether any *blood* or *blood component* was adversely affected by a deviation and, if so, whether all such units of *blood* and *blood components* have been retrieved.

g. Measures to Ensure SOP Compliance. Within 60 *days* after entry of this Order, *ARC* shall hire and begin working with an independent consultant to investigate failures to follow established *ARC SOPs*. A report shall be prepared of the investigation to include an analysis of past failures to follow *SOPs*. Within 120 *days* after entry of this Order, the report of the consultant's findings shall be submitted to the *ARC senior management* and *ARC Biomedical Services senior management* pursuant to Paragraph XI herein, and to FDA.

C. Employee Training.

1. Within 180 *days* after entry of this Order, *ARC* shall complete a retrospective review of all training records for personnel hired, promoted or transferred since the last 100% training record review was performed in each region, who are assigned to perform functions related to the collection, manufacture, processing, packing, holding, distribution, or other disposition of *blood* or *blood components*, to ensure that each person has been trained in assigned procedures, has demonstrated competency in those procedures, and that such training and competency is documented for each assigned function for all such personnel. Within 10 *days* after completion of the review, *ARC* shall report, in writing, the results of the review to *ARC senior management* and *ARC Biomedical Services senior management* pursuant to paragraph XI herein and to the *ARC Biomedical Services Committee* and the Audit Committee of the *ARC* Board of Governors, and shall, within 30 days after submitting the report, develop and implement a plan for corrective action to promptly correct all deficiencies detected during the review.

2. Within 30 *days* of entry of this Order, *ARC* shall review and develop a plan to modify if necessary, and thereafter continuously follow its formal training plan, which revised plan shall include, but not be limited to, a written document defining each phase of the *ARC* training program, including, but not limited to, requirements and procedures, and appropriate

follow-up, to evaluate and document the effectiveness of the training to ensure that personnel understand and can properly perform their duties and responsibilities. These requirements shall apply to all personnel having responsibility relating to the collection, manufacture, processing, packing, holding, distribution, or other disposition of *blood* or *blood components*, including but not limited to:

- a. records management;
- b. computer operations related to Biomedical Services, including, but not limited to, data entry, storage, and retrieval;
- c. *biological product deviation* reporting, investigations, and corrective action follow-up;
- d. *adverse reaction* investigations, *suspected transfusion transmitted disease* investigations, and *lookback* investigations;
- e. conducting audits; and
- f. quality assurance and quality control operations.

3. All *ARC* training shall be conducted by qualified persons and shall be adequate in content, length, frequency, and verification procedures to ensure that personnel understand and can properly perform their duties and responsibilities. The training shall include general training applicable to all personnel involved in the collection, manufacture, processing, packing, holding, distribution, or other disposition of *blood* or *blood components*, as well as procedure-based, standardized training to those individuals within each of the areas identified above. Training shall identify and focus on critical elements in each job, the critical steps in each procedure, applicable FDA regulations, *CGMP*, applicable *ARC SOPs*, and quality assurance theory and practice.

4. *ARC* shall monitor, evaluate, and document at least annually the effectiveness of all training developed since entry of this Order, and, as necessary, shall revise the training and procedures. In addition, *ARC* shall monitor, at a minimum, *ARC's Clarify reports* (and/or any other successor or similar deviation-reporting systems and/or reports), *biological product deviation reports*, *internal deviation reports*, *trends*, *adverse reaction reports*, *lookback cases*, *cases of suspected transfusion-transmitted disease*, *potential system (systemic) problem reports*, *system (systemic) problems*, *supply and equipment problem reports*, *FDA-483s*, compliance-related FDA correspondence, internal and external audit reports, and *retrievals* to assess the effectiveness of the associated training, and as necessary, revise the training and procedures.

5. *ARC's* training procedures shall specifically provide that:

a. a system shall be continuously followed to ensure and document that each employee has successfully completed his or her training program prior to assuming any duties, except to the extent that proper training requires on-the-job training under close supervision;

b. training shall be given to laboratory and other personnel, including supervisors, involved in testing *blood* or *blood components* to ensure that critical steps in the testing procedures are fully understood and followed; supervisors shall receive additional specific training regarding their supervisory functions;

c. competency reviews shall be conducted and documented, at least annually, to evaluate each employee's job performance including, when appropriate, actual performance of testing and data entry in controlled situations;

d. appropriate additional training shall be given to all personnel who, based on competency reviews, audits, or other information, appear to have incomplete knowledge or who have not performed their jobs satisfactorily; *ARC* shall ensure that such employees do not resume

independent performance of their jobs before the additional training has been given and has been determined and documented to be effective by *ARC*;

e. where on-the-job training is necessary for any employee, that fact shall be noted in the employee's training file, which shall include a signed statement from the employee that such on-the-job training has been given and/or is being given before the employee is permitted to perform his or her job; and

f. each employee's training file shall include a list that identifies each procedure for which the employee is responsible and statements signed by the employee and that employee's supervisor attesting to the fact that the employee has read and understands the *ARC SOPs* that relate to his or her job, that the employee has received, successfully completed, and understands the training specified in this paragraph IV.C, and that as a result of the foregoing, the employee is qualified, competent, and ready to perform each such procedure. When appropriate, the employee shall also sign updated statements that he or she has received and understands additional or corrective training.

6. All personnel who are employed by *ARC* shall have received the formal training described in this paragraph IV.C and shall have current documentation of such training and of demonstrated competency in each procedure that they are assigned to perform, before performing those procedures, except to the extent that proper training requires on-the-job training under close supervision. Before new procedures are implemented, each employee authorized to perform those procedures shall be trained in such procedures, if required. Only those employees who have received such training, have demonstrated competency in each assigned procedure, and whose files comply with subparagraph IV.C.5.f above, may independently perform job functions relating to *blood* or *blood components*. All *ARC* personnel

shall complete the training described in paragraph IV.C before assuming their duties involving *blood or blood components*.

V. COMMUNICATIONS BETWEEN ARC AND FDA: All communications to *ARC* from FDA regarding this Order shall be made in writing by the Director, Baltimore District, and sent to the Executive Vice President and Chief Executive Officer, Biomedical Services, with copies to *ARC's* President and Chief Executive Officer, General Counsel, and when FDA deems appropriate, to the Chairman of *ARC's* Board of Governors. Except as otherwise provided, all reports, notifications, and certifications required by this Order to be submitted to FDA shall be sent to the Director, Baltimore District, with copies to the Director, Center for Biologics Evaluation and Research and upon request by FDA, to the Office of the Associate Commissioner of Regulatory Affairs. All decisions to impose penalties on *ARC* under this Order will be made by FDA after consultation among FDA's Baltimore District Office, the Center for Biologics Evaluation and Research, and the Office of the Associate Commissioner of Regulatory Affairs. Any adverse determination issued pursuant to this Order will be communicated to *ARC* in writing, shall state the specific reasons for the adverse determination, and shall be prominently marked "Adverse Determination."

VI. PROCEDURES FOR SOP, REPORT, AND PLAN SUBMISSION, REVIEW, AND IMPLEMENTATION:

A. *ARC* shall submit to FDA those *SOPs*, reports, and plans that this Order, in paragraphs IV.B.1, IV.B.11.b(ii), IV.B.17.a, VII, and VIII, expressly requires *ARC* to submit to FDA, within the time frames established in those paragraphs, and in the event *ARC* fails to do so, FDA may assess a penalty of up to \$10,000 per *day* per *SOP*, report, or plan, until *ARC* submits the *SOPs*, reports, and plans.

B. FDA shall advise *ARC*, in writing, whether each *SOP*, report, or plan submitted by *ARC* pursuant to paragraph VI.A appears to be adequate to bring *ARC* into compliance with *the law* and this Order. If FDA determines that an *SOP*, report, or plan appears adequate to comply with *the law* and this Order, that *SOP*, report, or plan shall be implemented and *ARC* shall, within 20 *days* of receipt by *ARC* of FDA's determination in writing, or within such additional time as may be requested by *ARC* and granted by FDA, be bound, subject to the sanctions described in paragraph IX of this Order, to comply with that *SOP*, report, or plan. If the *SOP*, report, or plan submitted by *ARC* pursuant to paragraph VI.A contains changes as defined in 21 C.F.R. § 601.12, then *ARC* shall comply with that regulation, and *ARC* shall, within 15 *days* of receipt by *ARC* of FDA's approval of the supplement, or within such additional time as may be requested by *ARC* and granted by FDA, be bound, subject to the sanctions described in paragraph IX of this Order, to comply with that *SOP*, plan, or report covered by the supplement. If FDA determines that any submitted *SOP*, report, or plan appears inadequate, FDA shall state the specific basis for its determination in writing, and the *penalty, review, and appeal procedures* set forth in paragraph IX below shall be followed until *ARC* obtains a favorable determination from FDA or the Court as to the apparent adequacy of that *SOP*, report, or plan. Notwithstanding the foregoing, FDA may direct *ARC* to make changes to a submitted *SOP*, report, or plan without subjecting *ARC* to the *penalty, review, and appeal procedures* set forth in paragraph IX below if FDA determines that the *SOP*, report, or plan that *ARC* submitted was substantially complete and substantially accomplished its objective, or if FDA determines that FDA's proposed changes are minor.

VII. REVISION OF *SOPs*, REPORTS, AND PLANS AND CREATION OF NEW *SOPs*, REPORTS, AND PLANS: At any time, FDA may notify *ARC* in writing, and, failing *ARC*'s agreement, may ask the Court to require *ARC*, to revise any *SOP*, report, or plan required by this Order, or to submit any new *SOP*, report, or plan that FDA deems necessary to bring *ARC* into compliance with *the law* or this Order. Any such notification by FDA shall be in writing and shall state the specific reasons therefor. *ARC* shall submit the revised or new *SOP*, report, or plan to FDA within 20 *days* of FDA's notice, or of the Court's Order, unless FDA or the Court establishes a different time frame in writing. The *procedures for SOP, report, and plan submission, review, and implementation* described in paragraph VI shall apply to *ARC*'s submission of revised or new *SOPs*, reports, or plans under this paragraph.

VIII. COMPLIANCE WITH *THE LAW*, *ARC SOPs*, AND THIS ORDER: In the event that FDA determines, based upon inspection initiated after entry of this Order, review of *ARC* records, or other information that comes to FDA's attention after entry of this Order, that *ARC* is not following any *SOP* that may affect donor safety or the *purity* or labeling of *blood* or any *blood component*, including, but not limited to, any *SOP* developed pursuant to or required by this Order, whether or not such *SOP* is listed in paragraph VI.A above; has violated *the law*; has failed to fully comply with any time frame, term, or provision of this Order; has failed to fully comply with any report or plan developed pursuant to this Order after such report or plan has become effective; or that any report, plan, *SOP*, or other measure implemented by *ARC* to comply with this Order is inadequate to comply with *the law*, *ARC SOPs*, or this Order; then FDA may order *ARC* to come into compliance with *the law*, *ARC SOPs*, or this Order, assess penalties, and/or to take any step that FDA deems necessary to bring *ARC* into compliance with *the law*, *ARC SOPs*, or this Order.

All such FDA determinations and orders shall constitute adverse determinations that are, unless specified otherwise in writing by FDA, subject to the *penalty, review, and appeal procedures* of this Order. Steps that FDA may order include, but are not limited to: revising, modifying, or expanding any *SOP*, report, or plan prepared pursuant to this Order; submitting additional *SOPs*, reports, plans or information to FDA within specified time frames; increasing or modifying training; stopping collection, manufacture, processing, packing, holding and distributing of *blood* and *blood components* in one or more *regions* and/or *laboratories*; placing in abeyance applications and supplements submitted to FDA; and taking such other corrective action as FDA deems necessary to comply with *the law, ARC SOPs*, or this Order. In the event FDA issues an order to *ARC* pursuant to this paragraph, FDA shall notify *ARC* in writing of the specific basis for FDA's determination. The *penalty, review, and appeal procedures* set forth in paragraph IX of this Order shall be followed until FDA or the Court determines that *ARC* is in compliance with *the law, ARC SOPs*, and this Order.

IX. PROCEDURES FOR PENALTIES, FDA REVIEW, AND COURT APPEAL:

A. If *ARC* agrees with any adverse determination under this Order to which these *penalty, review, and appeal procedures* apply, *ARC* shall, within 20 *days* of receipt of the determination, or within such additional time as FDA may grant pursuant to paragraph IX.E of this Order, notify FDA of its intent to come into compliance with *the law* and this Order and submit a compliance plan ("plan") specifically describing how and within what time frames *ARC* proposes to come into compliance with *the law* and this Order. Whenever *ARC's* plan indicates that *ARC* proposes to take more than 30 *days* to achieve compliance, *ARC* shall also submit a written interim plan ("interim plan") specifically describing how and within what time frames *ARC* proposes to comply with *the law* and this Order during the period in which *ARC* is

implementing the plan. Commencing with the date of the *ARC* violation(s) that gave rise to FDA's determination, and subject to the limitation of paragraph IX.F.2, FDA may assess a penalty of up to \$10,000 for each violation and for each *day* described in FDA's determination until the *day* that *ARC* submits its plan and, when applicable, interim plan.

If FDA determines that a plan or interim plan appears adequate to achieve compliance, it shall so notify *ARC* in writing. However, it is understood that any such FDA determination of apparent adequacy shall not preclude FDA either from: (a) subsequently determining during the course of an inspection or otherwise that *ARC* failed to follow the plan or interim plan or that the plan or interim plan was (were) not in fact adequate to achieve compliance with *the law* or this Order, or (b) assessing a penalty for such failure(s) to comply with *the law* or this Order as provided in paragraphs VIII and this paragraph.

If, based upon review of *ARC's* plan or interim plan, FDA determines that *ARC's* plan or interim plan do(es) not appear adequate, FDA shall notify *ARC* in writing of the specific reasons for its determination. FDA shall not assess any going forward penalty for such inadequacies identified in the plan or interim plan; however, nothing shall preclude FDA from subsequently determining, through inspection(s) or otherwise, whether *ARC* has achieved compliance with *the law* and this Order and, when appropriate, assessing a penalty. If FDA subsequently determines that *ARC* has not in fact achieved compliance with *the law* and this Order, the statute of limitations described in subparagraph IX.F.2 shall run back from the date of such subsequent FDA determination and not from the date that FDA notified *ARC* that the plan or interim plan was (were) inadequate.

B. If *ARC* disagrees with any adverse FDA determination under this Order to which these *penalty, review, and appeal procedures* apply, *ARC* shall respond in writing to FDA within 20

days of receiving FDA's determination, or within such additional time as FDA may grant pursuant to paragraph IX.E of this Order, explaining the reasons for *ARC's* disagreement. After receipt of *ARC's* response, FDA may modify, affirm, or withdraw its determination. If FDA affirms or modifies its determination, *ARC* shall, within 15 *days* of receipt thereof, either: (1) advise FDA in writing that it does not wish to appeal FDA's determination, pay the penalties assessed and accrued under paragraph IX.A above, and submit a plan and, when applicable, interim plan describing how and within what time frames *ARC* proposes to come into compliance with *the law* and this Order, or (2) appeal FDA's determination to this Court. *ARC's* failure to appeal FDA's determination to this Court within the time frames required by this Order shall constitute a waiver of the right to seek judicial review of that FDA determination. In the event *ARC* files a timely appeal to this Court, FDA shall provide the record of its decision to the Court, whereupon the Court will decide the matter pursuant to the standard set forth in paragraph XX of this Order.

C. If the Court agrees with FDA, *ARC* shall pay the penalty of up to \$10,000 per *day* per violation assessed by FDA and accrued under this paragraph, and FDA may also assess a penalty of up to \$10,000 per *day* per violation from the date of the Court's adverse determination until *ARC* submits the plan(s) and interim plan(s) that comply with the Court's order or, as applicable, the adverse determination made by FDA pursuant to this Order.

D. If the Court disagrees with FDA, *ARC* shall not be assessed any monetary penalty.

E. If *ARC* believes that 20 *days* is not a sufficient amount of time to prepare a response described in paragraph IX.A or B, *ARC* shall, within 10 *days* of receiving FDA's adverse determination, request an extension of time. Any such request shall be in writing, state precisely how much additional time is requested, and explain all reasons for the request. Requests for