Household & Commercial Products Association
April 25, 2023
Guidance for Products Adding Residual Efficacy Claims

LOCATION	COMMENT
Section I. Residual Disinfectant Claims - A. 1.	The guidance states that it is not intended to address residual disinfectant products formulated as towelettes. It is unclear why application methods such as towelettes have been excluded. This exclusion is particularly restrictive given that the Centers for Disease Control and Prevention's Guidelines for Environmental Infection Control in Health-Care Facilities (see https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines-P.pdf) recommends that healthcare environmental surfaces (e.g., areas housing immunosuppressed patients) are disinfected by EPA-registered towelettes due to concerns with disinfectant spraying or fogging in patient-care areas. As seen by this example, other federal agencies rely on the availability of certain product types and excluding those without justification causes significant confusion. *HCPA recommends that the guidance and methods allow for towelette applications.*
Section I. - Residual Disinfectant Claims - B. 1.	Section I. B. 1. and the EPA residual efficacy guidance and methods webpages refer to the Residual Self-Sanitization Method as "interim" (Protocol #01-1A), however the method/protocol has been finalized and approved. *HCPA requests the deletion of the term "interim" throughout the residual efficacy guidance and methods documentation and on EPA's website to accurately depict the status of the Residual Self-Sanitization Method.*
Section I. - Residual Disinfectant Claims - B. 6.	We note that EPA removed the allowance for shorter residual claims. *HCPA asks that EPA provide the rationale and justification for the Agency's movement away from this allowance, including additional guidance for changing the times on the label in standard increments.*
Section II. - Supplemental Residual Antimicrobial Products - B. Antimicrobial Surface Coatings and Films - 4.	The revised guidance allows for the number of chemical exposure and abrasion processes provided in the method to substantiate a one-week supplemental residual antimicrobial claim. Substantiating claims for additional weeks, requires consultation with the Agency. This is a drastic change from the interim method which allowed for the duration of a residual claim for up to four weeks (in one week increments). The shorter duration time puts undue time on the registrants, and further contributes to EPA's workload. *Therefore, HCPA requests that EPA revert back to the duration time established in the interim guidance for testing up to four weeks in one week increments.*

Household & Commercial Products Association
April 25, 2023
SOP No. MB-40-00

LOCATION	COMMENT
Section 2. Apparatus - k. Environmental chamber	HCPA appreciates EPA's modification to the temperature range to 21±3°C, however, notes that the relative humidity (RH) requirement remains at 30-40%. This RH level can be difficult to maintain during humid months. *HCPA requests that EPA change the RH requirement to 60% or below.*
Section 3. Bacterial Reagents - b. v.	The revised method requires an organism to be grown in synthetic broth instead of TSB, which can be problematic for Pseudomonas with a two-hour exposure time to meet the carrier counts. *HCPA requests the use of synthetic broth or equivalent (e.g., TSB, nutrient broth, etc.).*
Section 5. Common Reagents - d. i.	Many products require additional additives in the CGM for sufficient neutralization. *Therefore, HCPA requests that EPA allow the laboratory choose the neutralizer used in the assay without having to confirm CGM as inefective first.*
Section 5. Common Reagents - e.(i.)(ii.)(iii.)	The SOP states to store soil components at -20±2°C. *HCPA requests clarification on whether the -20±2°C range is specific to EPA's equipment range, and if laboratories can follow their own equipment range seeing that the allowable range can vary by model and manufacturer.*
Section 6. Carriers - Table 1	Table 1 only lists carrier sets for bacteria. *HCPA requests the inclusion of a table for viruses including carrier sets for the hardest to kill virus and additional viruses.* Additionally, table 1 includes control Set #1 for both lot 1 and lot 2. *HCPA requests clairifcation if control Set #1 is required to be performed twice if both lots of product are tested on the same day for the given microorganism.*
Section 8. Product (Coating) Application - a.- d.	The drying of coating is no longer listed as a step in product application. *HCPA requests that EPA revise Section 8. b. to read "b. Following coating and drying , transfer carriers into individual sterile Petri dishes lined with filter paper, one carrier per dish. Alternatively, the carriers may stay in the dish used for treatment. Do not use carriers on which the coating coverage is not complete."*
Section 11. Wet/Dry Chemical Exposure and Abrasion: Treatment A, B, and C - a.	The previous version of the method stated to complete 10 abrasions cycles within five concecutive days; however, the current SOP does not specify the number of days. *HCPA requests that EPA clarify if there is a time limit as to when the abrasions cycles must be completed, and if consecutive days must be performed or is it acceptable to allow abrasion cycles to be interupted over weekends or a holiday.*
Section 11. Wet/Dry Chemical Exposure and Abrasion: Treatment A, B, and C - e.	The method requires initiation of the product performance testing within seven days of completion of the final chemical exposure/abrasion process. *HCPA requests that the time frame be extended to 14 days, to allow for flexibility in case unexpected events occur (e.g., additional host cell growth, organism issues, supply chain issues, etc.).*
Section 13. Preparation of Test Culture: *P. aeruginosa* and *S. aureus* - c., e.	The revised method requires an organism to be grown in synthetic broth instead of TSB, which can be problematic for *Pseudomonas* with a two-hour exposure time to meet the carrier counts. *HCPA requests the use of synthetic broth or equivalent (e.g., TSB, nutrient broth, etc.).*
Section 13. Preparation of Test Culture: *P. aeruginosa* and *S. aureus* - c.	In Section 13. c., dextrose is specified to be added no more than 15 minutes prior to inoculation. HCPA requests that EPA modify the instructions in this section to be consistent with the draft Quantitave Method, reading: addition of dextrose on the day of use.
Section 13. Preparation of Test Culture: *P. aeruginosa* and *S. aureus* - f. i. 1-2.	The revised SOP removed the option to use a pipette to remove the pellical; only the vacuum option is listed. *HCPA requests that EPA allow the use of a pipette to align with EPA's Interim Guidance and Methods for Evaluating the Efficacy of Antimicrobial Test Substances on Porous Surfaces in Non-Residential Settings.*
Section 13. Preparation of Test Culture: *P. aeruginosa* and *S. aureus* - i.	The mean control carrier count level is listed as 4.0 - 5.0 logs CFU/carrier. *HCPA requests clarification on whether this range is required for both Control Set #1 and Control Set #2.*
Section 14. Preparation of the Test Culture - Viruses - b.	The SOP states to thaw the virus rapidly at 37°C. Some viruses lose titer at 37°C or recover better through a slow, steady thaw at a lower temperature. *HCPA requests that the SOP be changed to state "thaw the virus;" or, alternatively, allow for different thawing processes.*
Section 14. Preparation of the Test Culture - Viruses - c.	Diluting the virus with complete growth medium (CGM) that includes Fetal Bovine Serum (FBS), adds to the organic load. Adding more organic load to the virus inoculum (to > than the theoretical 5% level) can be problematic for achieving performance standards. *HCPA requests that EPA consider allowing dilution of the virus in serum-free media* . Dilution at this step using media without FBS does not decrease the EPA required soil load (added in step 14e) so using media with FBS to dilute is uncessary.
	We also request the allowance to use animal serum as the organic challenge instead of the three-part soil because many viruses are already frozen in an animal serum organic load. Addition of a three-part soil to the soil load already present, exceeds the 5% requirement.
	The control count level is listed as 4.0 - 5.0 logs virus particles/carrier. *HCPA requests clarification if this range is required for both Control Set #1 and Control Set #2. In addition, HCPA asks for clarification if the test is still valid if the control carrier levels are above 5.0 logs CFU/carrier.*

Section 14. Preparation of the Test Culture - Viruses - d.	The SOP states to use the diluted virus within 30 minutes to prepare the final test culture with soil. Not all viruses require dilution to achieve appropriate carrier counts. *If the virus is not diluted, does the soil need to be added within 15 minutes or 30 minutes? HCPA requests clarification on this point.*
Section 15. Efficacy Assessment - h.	It can be difficult to meet the carrier control titer requirements for viral testing. *HCPA requests that EPA allow for an increased volume of virus to achieve the minimum carrier requirements.*
Section 16. Bacterial Recovery - n. & n. i.	Incubation for coated or abraded carriers is set to 72±4 hours. For *Pseudomonas* , filters tend to be overgrown and difficult to read at this time. *HCPA requests that EPA allow the option to read filter plates between 48 and 72 hours to avoid overgrowth. We also request that EPA allow consistent incubation time for test and control plates as it is challenging to monitor at different time points.*
Section 17. Virus Recovery - a.	A 20 mL neutralizer recovery volume for viruses decreases the level of detection sensitivity and, in most cases, is unecessary to achieve neutralization. *HCPA requests that EPA allow lower neutralizer volume, e.g. sufficient enough volume to cover the carrier to be able to meet the minimum control carrier counts and demonstrate neutralization.*
Section 17. Virus Recovery - e.	The method states to titrate the samples for virus infectivity. Titrate can also be interpreted to mean "serial dilute." *HCPA requests that either "titrate" be added to the definitions section, or the term "titrate" be modified to "inoculate."*
Section 17. Virus Recovery - f.	The SOP states to plate a minimum of 80% of the volume (8 ml for 10 ml volumes and 16 ml for 20 ml volumes) of the 10^0 dilution and of each dilution tube. Additionally, it requires a large number of cell culture plates, placing additional burden to meet the 30-minute plating requirement. *HCPA requests flexibility in determining the volume of neutralizer sufficient to cover the carriers, and flexibility in the amount plated for recovery to maintain the required viral titer per carrier. We also request clarification on the new requirement to plate 80% of the dilution or recovery volume as this is not a requirement in ASTM E1053.*
Setion 17. Virus Recovery - i.	The SOP states to use at least one well as a positive growth control (e.g., one of the dilutions from a control carreir). *HCPA requests clarification of this as wouldn't all dilutions of the control carriers be inoculated?*
Appendix C - Preparation of Bacterial Frozen Stock Cultures	Step 7 of the Preparation of Bacterial Frozen Stock Cultures section states to use a Vitek apparatus for organism identification (ID), however, not all laboratories have this equipment. Additionally, in Section 2 title "Apparatus", the method states that the identification system is optional. *HCPA requests section e. be revised to the following: "Conduct confirmation using an appropriate means of identification (e.g., Vitek, biochemical analysis, antigenic analysis, selective agar, etc.)."*
Appendix F - Bacterial Neutralization - 1.	Section 15. b. states to perform the neutralization assay prior to testing, and cites to Appendix F and Appendix H; however, Appendix F does not specify timing. *HCPA requests clarification on whether the neutralization control is required to be performed prior to efficacy testing. If so, please confirm that the neutralization assay is not required to be performed concurrent with testing. We also request that EPA allow flexibility to perform the neutralization control concurrent with testing.*
Appendix F - Bacterial Neutralization - 1. and 3. a.	It is unclear whether abraded carriers are used for the neutralization control. If efficacy testing is required to be done within seven days from abrasion, it would be difficult to perform this step ahead of time with abraded carriers. *HCPA requests clarification from the Agency on whether abraded or unabraded carriers are to be used for the neutralization control.*
Appendix F - Bacterial Neutralization - 4. h.	In the previous version of the method, the incubation period was 48-72 hours; now, it is 48±4 hours with the re-incubation of plates with no growth or few colonies for an additional 20 to 28 hours. *HCPA requests that EPA define "few colonies" for clarity and consistency in results.*
Appendix F - Bacterial Neutralization - 3. a. - c.	The previous version of the method stated to use 100 uL of test culture instead of the new requirement of 20 uL. *HCPA requests that EPA change the requirement back to 100 uL to reduce variability.*
Appendix F - Bacterial Neutralization - 5. a.	Step 5 a. specifies that the Percent Difference in CFU be determined between the Titer Control versus the Neutralizer Toxicity Control and Neutralizer Effectiveness treatment. *HCPA requests that this be modified to simply allow the demonstration that the number of CFU's recovered from the Neutralizer Toxicity Control and Neutralizer Effective Treatment are at least 50% of the number of CFUs recovered for the Titer Control (i.e., that the number of CFU's recovered for the Neutralizer Toxicity Control and Neutralizer Effective Treatment are at least 0.5*(# CFUs recovered for the Titer Control)).*
Appendix G - Cytotoxicity Determination - 1.	Step 1 states to perform the neutralizer effect on cell lines for neutralizers other than CGM with 2% FBS, but some viruses will not grow in the presence of serum. *HCPA requests clarification on whether the control needs to be performed if the test virus is not compatible with FBS but a cell culture-based medium (without FBS) is used as the neutralizer. Additionally, please clarify whether the cytotoxicity determination is required to be done again during testing of both lots, as it is already required prior to the neutralization assay.*
Appendix G - Cytotoxicity Determination - 2. a.	*HCPA requests clarification on whether abraded carriers are used. Please also address the typo as it currently reads "Add the carrier to one coated test carrier…"*

Appendix G - Cytotoxicity Determination - 2.	Step 2 states to use CGM with 2% FBS, however, not all viruses will grow in growth media with FBS (e.g. rotavirus). *HCPA requests that the text be revised to allow appopriate media.*
Appendix G - Cytotoxicity Determination - 2. f.	The cytotoxicity check of the neutralizer and residual coating effect on the cell line is extremely labor and time intensive, which unnecessarily adds to the cost of testing. This extensive evaluation is not a requirement in ASTM E1053. *HCPA suggests that EPA modify the instructions by removing the extensive cytotoxicity evaluation time points and stating that the cells will be microscopically observed as necessary for cytotoxicity, and media from applicable dilutions will be changed as necessary.*
Appendix G - Cytotoxicity Determination - 3.	This step consists of a three-part soil effect on the cell line. If cytotoxicity is present, it will be observed in the control set. *Therefore, HCPA requests that this requirement be removed.*
Appendix H - Viral Neutralization Assay	Section 15(B) states to perform the neutralization assay prior to testing, and cites to Appendix F and Appendix H; however, Appendix F does not specify timing. *HCPA requests clarification on whether the neutralization control is required to be performed prior to efficacy testing. If so, please confirm that the neutralization assay is not required to be performed concurrent with testing. We also request that EPA allow flexibility to perform the neutralization control concurrent with testing.*
Appendix H - Viral Neutralization Assay - 2.	The method states that the acceptable neutralization difference is 0.5 log. *HCPA requests that this be expanded to 1.0 log knowing that the inherent varibility of performing titrations can be up to 1 log.*
Appendix H - Viral Neutralization Assay - 5. a.	It is unclear whether abraded carriers are used for the neutralization control. If efficacy testing is required to be done within seven days from abrasion, it would be difficult to perform this step ahead of time with abraded carriers. *HCPA requests clarification from the Agency on whether abraded or unabraded carriers are to be used for the neutralization control.*

Household & Commercial Products Association
April 25, 2023
SOP No. MB-41-00

LOCATION	COMMENT
Section 2. Apparatus - m. Environmental chamber	HCPA appreciates EPA's modification to the temperature range to 21±3°C, however, notes that the relative humidity (RH) requirement remains at 30-40%. This RH level can be difficult to maintain during humid months. *HCPA requests that EPA change the RH requirement to 60% or below.*
Section 5. Common Reagents - e.(i.)(ii.)(iii.)	The SOP states to store soil components at -20±2°C. HCPA requests clarification on whether the -20±2°C range is specific to EPA's equipment range, and if laboratories can follow their own equipment range seeing that the allowable range can vary by model and manufacturer.
Section 6. Carriers - Table 1	Table 1 only lists carrier sets for bacteria. *HCPA requests the inclusion of a table for viruses including carrier sets for the hardest to kill virus and additional viruses.*
Section 8. Preparation of Test Cultures: *Pseudomonas aeruginosa* and *S. aureus* - c.	The revised method requires an organism to be grown in synthetic broth instead of TSB, which can be problematic for *Pseudomonas* with a two-hour exposure time to meet the carrier counts. *HCPA requests the use of synthetic broth or equivalent (e.g., TSB, nutrient broth, etc.).*
	In Section 13. c., dextrose is specified to be added no more than 15 minutes prior to inoculation. *HCPA requests that EPA modify the instructions in this section to be consistent with the draft Quantitative Method, reading: addition of dextrose on the day of use .*
Section 8, Preparation of Test Cultures: *Pseudomonas aeruginosa* and *S. aureus* - f.i.1.	The revised SOP removed the option to use a pipette to remove the pellical; only the vacuum option is listed. *HCPA requests that EPA allow the use of a pipette to align with EPA's Interim Guidance and Methods for Evaluating the Efficacy of Antimicrobial Test Substances on Porous Surfaces in Non-Residential Settings.*
Section 8. Preparation of Test Culture: P. aeruginosa and S. aureus - k. i. & ii.	This section reflects the same number of carriers used in SOP MB-40 (35 carriers), however, the set number of carriers for this SOP is 38. *HCPA requests that the agency fix this typo to avoid confusion as Table 1 has 38 carriers.*
Section 9. Preparation of the Test Culture: Viruses - b.	The SOP states to thaw the virus rapidly at 37°C. Some viruses lose titer at 37°C or recover better through a slow, steady thaw at a lower temperature. *HCPA requests that the SOP be changed to state "thaw the virus;" or, alternatively, allow for different thawing processes.*
Section 9. Preparation of the Test Culture: Viruses - c.	Diluting the virus with complete growth medium (CGM) that includes Fetal Bovine Serum (FBS), adds to the organic load. Adding more organic load to the virus inoculum (to > than the theoretical 5% level) can be problematic for achieving performance standards. *HCPA requests that EPA consider allowing dilution of the virus in serum-free media* . Dilution at this step using media without FBS does not decrease the EPA required soil load (added in step 14e) so using media with FBS to dilute is uncessary.
	The control count level is listed as 4.0 - 5.0 logs virus particles/carrier. *HCPA requests clarification if this range is required for both Control Set #1 and Control Set #2. In addition, HCPA asks for clarification if the test is still valid if the control carrier levels are above 5.0 logs CFU/carrier.*
Section 9. Preparation of the Test Culture: Viruses - d.	The SOP states to use the diluted virus within 30 minutes to prepare the final test culture with soil. Not all viruses require dilution to achieve appropriate carrier counts. *If the virus is not diluted, does the soil need to be added within 15 minutes or 30 minutes? HCPA requests clarification on this point.*
Section 10. Efficacy Assessment	HCPA has high concerns about hitting a population of 4.0-5.0 logs CFU for *Pseudomonas aeruginosa* over 2 hours when grown in Synthetic Broth as encountered with other test methods such as the AOAC Use Dilution and Germicidal Spray methods. *HCPA requests the use of "synthetic broth, or an equivalent media" as this will allow the flexibility to select a different media if needed in order to meet the minimum carrier counts.*
Section 10. Efficacy Assessment - b.	Numerous methods allow for the neutralization assay to be performed on the same day as efficacy testing. *HCPA requests that EPA allow for the neutralization assay to be performed prior to or concurrent with the efficacy study. We also request confirmation that if done prior to testing, the neutralization assay does not need to be done again.*
Section 10. Efficacy Assessment - h.	It can be difficult to meet the carrier control titer requirements for viral testing. *HCPA requests that EPA allow for an increased volume of virus to achieve the minimum carrier requirements.*
Section 11. Bacterial Recovery - n. i.	Incubation for coated or abraded carriers is set to 72±4 hours. For *Pseudomonas* , filters tend to be overgrown and difficult to read at this time. *HCPA requests that EPA allow the option to read filter plates between 48 and 72 hours to avoid overgrowth. We also request that EPA allow consistent incubation time for test and control plates as it is challenging to monitor at different time points.*

Section 12. Virus Recovery - a.	A 20 mL neutralizer recovery volume for viruses decreases the level of detection sensitivity and, in most cases, is unecessary to achieve neutralization. *HCPA requests that EPA allow lower neutralizer volume, e.g. sufficient enough volume to cover the carrier to be able to meet the minimum control carrier counts and demonstrate neutralization.*
Section 12. Virus Recovery - c.	The instructions state to initiate dilutions, however, do not specify how these are to be performed. *HCPA requests clarification whether this means that 1:10 dilutions are performed.*
Section 12. Virus Recovery - e.	The method states to titrate the samples for virus infectivity. Titrate can also be interpreted to mean "serial dilute." *HCPA requests that either "titrate" be added to the definitions section, or the term "titrate" be modified to "inoculate."*
Section 12. Virus Recovery - f.	The SOP states to plate a minimum of 80% of the volume (8 ml for 10 ml volumes and 16 ml for 20 ml volumes) of the 10^0 dilution and of each dilution tube. Additionally, it requires a large number of cell culture plates, placing additional burden to meet the 30-minute plating requirement. *HCPA requests flexibility in determining the volume of neutralizer sufficient to cover the carriers, and flexibility in the amount plated for recovery to maintain the required viral titer per carrier. We also request clarification on the new requirement to plate 80% of the dilution or recovery volume as this is not a requirement in ASTM E1053.*
Section 12. Virus Recovery - g.	The SOP states to plate with maximum volume of the dilution tube (*i.e.,* add 1 ml per well for a 24 well plate). *HCPA believes there is a typo and the text should state the maximum volume of the "well" to ensure alignment with MB-40 wording.*
Setion 12. Virus Recovery - i.	The SOP states to use at least one well as a positive growth control (e.g., one of the dilutions from a control carreir). *HCPA requests clarification of this as wouldn't all dilutions of the control carriers be inoculated?*
Section 13. Calculations/Data Analysis - Table 3	It may be difficult for products to meet the outcome differences between unexposed and exposed stainless steel carriers due to inherent variability. *HCPA requests that EPA allow for a 1 log difference instead of 0.5 log difference because of the expected die off between carriers can be inconsistent during a two-hour dry time.*
Appendix A - Preparation of Bacterial Frozen Stock Cultures - 7.e.	Step 7 of the Preparation of Bacterial Frozen Stock Cultures section states to use a Vitek apparatus for organism identification (ID), however, not all laboratories have this equipment. Additionally, in Section 2 title "Apparatus", the method states that the identification system is optional. *HCPA requests section e. be revised to the following: "Conduct confirmation using an appropriate means of identification (e.g., Vitek, biochemical analysis, antigenic analysis, selective agar, etc.)."*
Appendix D - Bacterial Neutralization Assay - 1.	It is unclear whether abraded carriers are used for the neutralization control. If efficacy testing is required to be done within seven days from abrasion, it would be difficult to perform this step ahead of time with abraded carriers. *HCPA requests clarification from the Agency on whether abraded or unabraded carriers are to be used for the neutralization control.*
Appendix D - Bacterial Neutralization Assay - 5. Data Analysis/Calculations	Step 5 a. specifies that the Percent Difference in CFU be determined between the Titer Control versus the Neutralizer Toxicity Control and Neutralizer Effectiveness treatment. *HCPA requests that this be modified to simply allow the demonstration that the number of CFU's recovered from the Neutralizer Toxicity Control and Neutralizer Effective Treatment are at least 50% of the number of CFUs recovered for the Titer Control (i.e., that the number of CFU's recovered for the Neutralizer Toxicity Control and Neutralizer Effective Treatment are at least 0.5*(# CFUs recovered for the Titer Control)).*
Appendix E - Cytotoxicity Determination - 1.	Step 1 states to perform the neutralizer effect on cell lines for neutralizers other than CGM with 2% FBS, but some viruses will not grow in the presence of serum. *HCPA requests clarification on whether the control needs to be performed if the test virus is not compatible with FBS but a cell culture-based medium (without FBS) is used as the neutralizer. Additionally, please clarify whether the cytotoxicity determination is required to be done again during testing of both lots, as it is already required prior to the neutralization assay.*
Appendix E - Cytotoxicity Determination - 2.a.	*We request that the Agency confirm whether this step is performed with unabraded carriers.* Previous versions of the method stated "unexposed" carriers, however, the current version does not specify abraded/unabraded.
Appendix E - Cytotoxicity Determination - 2.f.	The cytotoxicity check of the neutralizer and residual coating effect on the cell line is extremely labor and time intensive, which unnecessarily adds to the cost of testing. This extensive evaluation is not a requirement in ASTM E1053. *HCPA suggests that EPA modify the instructions by removing the extensive cytotoxicity evaluation time points and stating that the cells will be microscopically observed as necessary for cytotoxicity, and media from applicable dilutions will be changed as necessary.*
Appendix E - Cytotoxicity Determination - 3.	This step consists of a three-part soil effect on the cell line. If cytotoxicity is present, it will be observed in the control set. *Therefore, HCPA requests that this requirement be removed.*

Appendix F - Viral Neutralization Assay	Section 15(B) states to perform the neutralization assay prior to testing, and cites to Appendix F and Appendix H; however, Appendices F and H do not specify timing. *HCPA requests clarification on whether the neutralization control is required to be performed prior to efficacy testing. If so, please confirm that the neutralization assay is not required to be performed concurrent with testing. We also request that EPA allow flexibility to perform the neutralization control concurrent with testing.*
Appendix F - Viral Neutralization Assay - 2.	The method states that the acceptable neutralization difference is 0.5 log. *HCPA requests that this be expanded to 1.0 log knowing that the inherent varibility of performing titrations can be up to 1 log.*
Appendix F - Viral Neutralization Assay - 5.a.	It is unclear whether abraded carriers are used for the neutralization control. If efficacy testing is required to be done within seven days from abrasion, it would be difficult to perform this step ahead of time with abraded carriers. *HCPA requests clarification from the Agency on whether abraded or unabraded carriers are to be used for the neutralization control.*