

SECTION 5: RESIDENT AND TEMPORARY PLANT GRADING REQUIREMENTS

I. General

Resident shell egg graders are charged with the responsibility of determining the class, quality, quantity, and condition of each lot of product that management requests to be graded. In carrying out this responsibility, there will be variations in the grading services performed depending on the type of certification performed.

II. Quality Assurance Inspector

When a company elects to utilize a quality assurance inspector to monitor the quality of USDA grade-labeled product that is packaged during periods when a licensed grader is not on duty, refer to Q-1, QUALITY ASSURANCE INSPECTOR PROGRAM (QAI), located in the Supervisors/Resident Graders Shell Egg Index, for complete instructions.

III. Extent of Examination of Daily Production Required

A. Grade Labeled Product

Graders stationed in plants that pack consumer labeled eggs are to continuously examine product as it leaves the grading line. The amount of product the grader examines will vary depending on the quantity and quality of the product being graded. Refer to Section 8 of this Handbook, ON-LINE SAMPLING OF SHELL EGGS, for proper procedures to follow when online sampling.

B. Lot Numbering Consumer Packages

All cartons, overwraps, and other types of consumer packages bearing the USDA grademark require legible lot numbering on the consumer package. The lot number is the consecutive day of the year (Exhibit I) on which the eggs were packed; such as, 042, 155, etc. This number must have three digits. For numbers less than 100, the lot number is expressed as 009, 087, etc.

Alternate lot numbering systems may be approved by the Federal-State supervisor. For example, some companies use specific codes (Alpha-Numeric, Day/Month/Year format, Month/Day/Year format, MM/DD/YY format, etc.), as long as the company explains the lot numbering system to the supervisor, and the alternative lot numbering system can be maintained in an acceptable fashion, it may be approved. A written description of the alternate lot numbering system must be presented to the resident grader for file folder 2. In plants where a shift normally works past midnight, the entire shift may elect to use the lot number corresponding to the day of the year on which the shift ends.

C. Expiration Dating (Domestic Market Policy)

Expiration dating on packaging material officially identified with the grademark is optional and is the responsibility of management. Expiration dates, company codes, etc., used by the packer or retailer for purposes such as stock rotation or inventory control, do not require departmental approval and may be used provided they are not misleading. However, the use of expiration dates requires an appropriate

qualifying prefix.

The regulations state, "Compliance with the regulations in this part shall not excuse failure to comply with any other Federal, or any State, or municipal applicable laws or regulations." Compliance with applicable State regulatory labeling requirements for use of an expiration date or stock rotation date is the responsibility of the distributor/packer.

Qualifying prefixes such as:

- EXP
- Expiration date
- Sell by
- Not to be sold after date on end of carton
- Purchase by
- Last sale date on end of carton or other similar language denotes stock rotation

The dates associated with these prefixes are to be calculated from the date the eggs are originally packed into the container and may not exceed 30 days including the day of pack.

Qualifying prefixes such as:

- Use before
- Use by
- Best before
- Best by
- Best if used by or other similar language generally indicates the maximum time frame for expected quality

The dates associated with these prefixes are to be calculated from the date the eggs are packed into the container and may not exceed 45 days including the day of pack.

D. USDA Plant Number, Lot Number, and Expiration Date Application

The USDA plant number, lot number, and expiration date, when applicable, must be correct and legible before the product leaves the plant. Graders are to constantly observe these items and obtain immediate correction when not in compliance. As a guide to determine acceptable legibility on consumer containers, the grader is to check ten containers in each sample, regardless of the number of eggs in each container. For example: If there are nine, 1-dozen cartons in a sample, the grader should select one additional carton to make a total of ten. If 6-egg pack, consumer containers are being sampled, the grader need check only ten containers, even though the 100-egg sample would require examination of 17 containers. For uniformity, the first ten, 6-egg packs should be used to determine acceptable legibility. Acceptance and rejection criteria are based on the following plans:

1. Accept – one container with information completely missing (10 percent).
Reject – two containers with information completely missing (20 percent).

2. Accept – three containers with information partially missing (30 percent).
Reject – four containers with information partially missing (40 percent).
3. Accept – one container with information which is completely missing and two containers with information partially missing (30 percent).
4. Reject – any product exceeding D.3 acceptable levels.

As a result, the plan allows:

- 10 percent missing
- 30 percent partially missing
- 30 percent in combination with not more than 10 percent completely missing

These tolerances apply to online and stationary lot sampling procedures. Acceptance and rejection of plant, lot number, and expiration date legibility is to be recorded on the Forms PY-75 and 75A, in the blank space beneath the Log Reference Number (See Example 1). A checkmark (✓) shall be used to indicate an acceptable sample, while an “X” shall be used to indicate that the sample was rejected. Any reference regarding a rejection due to incorrect or illegible items must be explained in the comment log section of Form PY-75 or 75A.

Example 1

		U.S. GRADE & SIZE									
		AA Medium									
Brand	WD	WD									Brand
Exp	9/29	9/29									Exp
Mach	2	2									Mach
Time	0830	0900									Time
Log Ref #	1										Log Ref #
	X	✓									

IV. Use of the "Produced From" Labeling

Use of the wording "Produced From" in conjunction with the U.S. grademark, is limited to products derived from U.S. Grade AA or Grade A shell eggs for which there are no U.S. grade standards (e.g., pasteurized shell eggs or hard-cooked eggs). The following guidelines are to be used when monitoring the official grade identification of these types of products.

A. Approval

Applicants interested in utilizing the “Produced From” labeling must submit a written proposal to the applicable Federal-State supervisor. The proposal is to include the type(s) of product to be labeled and

the applicant's plan for controlling the use and labeling of officially identified product. After review by the Federal-State supervisor, the supervisor is to forward the request to the Regional Director and National Office for final review and approval. Upon approval, the Federal-State supervisor is to re-confirm all of the requirements with the applicant prior to any actual grade identification.

Additionally, labeling and/or packaging material bearing a pre-printed "Produced From" grademark requires approval by the National Office prior to use. Expiration dating and compliance with State regulations will be the responsibility of the applicant.

B. Verification Visits

To assure that only officially graded shell eggs are being used, the processing, packing, and packaging must be closely monitored. In plants with resident service, the Federal-State supervisor or assistant is to be present during the initial production period to monitor the process and verify compliance. The resident grader will conduct all subsequent monitoring and verification activities with oversight from the supervisor. In temporary or fee locations, plant management must notify the Federal-State supervisor each time the "produced from" labeling will be used or, alternatively, provide the supervisor with a projected production schedule. At these locations, compliance will be based on the applicant's established history of compliance as outlined in the following schedule:

Level 1 - The Federal-State supervisor or assistant is to monitor and verify the process on the initial day of production. The supervisor or an assigned representative will conduct subsequent visits. At least one additional verification visit is to be conducted during the next 10 production days. If no discrepancies are noted, one visit is to be conducted for each 30 days of production until three consecutive satisfactory visits have been completed. Once this verification period has ended without any noted program non-conformance, monitoring may proceed to **Level 2**.

Level 2 - The Federal-State supervisor or assigned representative is to conduct quarterly verification visits provided the applicant continues to meet all program requirements. If any nonconformance is noted during these visits, monitoring reverts back to **Level 1**. Misuse of the labeling will result in cancellation of the approval.

Each verification visit shall include a review of records, product inventory, processing procedures, packing, packaging, storage, and shipping practices to confirm that the applicant is following the protocol outlined in their approved plan.

C. Record-Keeping

Applicants shall maintain, and make available for review, all invoices or applicable Form PY-210S Grading Certificates covering product received, produced, and shipped. At a minimum, these records must include the name and address of original packer, amount received, quantity produced, brand names, lot numbers, quantity shipped and name and address of receivers. Records must be maintained for two (2) years.

D. Misuse of "Produced From" Labeling

The misuse of this labeling (i.e., placing such labels on product not “produced from officially graded”), constitutes a violation of the Agricultural Marketing Act (AMA). In addition, noncompliance with the requirements of the labeling program may also result in withdrawal of the applicant's privilege to identify product with the “Produced From” identification.

E. Cost

There will be no additional charge to resident plants when graders monitor product labeling during their normal grading activities. When graded product is shipped from official plants to other processing locations for re-packaging that are not under continuous USDA supervision, time and expenses associated in conducting the verification visits will be charged to the applicant at the current fee rate.

V. Shell Egg Washing

A. Procedures for Washing Eggs

The following procedures are to be followed when washing eggs: [7 CFR 56.76(f) 1-14]:

1. Pre-wetting by submersion is prohibited.
2. Pre-wetting of eggs with a pressurized spray system must use water at a temperature 20 degrees greater than the internal temperature of the egg.
3. Washer systems must be cleaned daily or more frequently as necessary.
4. On continuous type washers, the water must be changed once during each (approximately every 4 to 5 hours) shift, at the end of each shift, and/or more frequently if necessary.
5. Wash water must contain an approved cleaning compound and be at least 20° Fahrenheit warmer than the eggs with a minimum water temperature of 90° Fahrenheit. If wash water temperatures drop below the minimum requirements, immediate correction is required. Should corrections not be completed within 15 minutes, all official identification of product shall cease until it is corrected.
6. In plants with multiple washers in sequence, the water temperature must be the same or warmer as the egg progresses through the washers.
7. Final rinse water must be equal to or warmer than the wash water. If final rinse does not properly remove (soap, foam etc.) immediate corrective action must be taken or official identification withdrawn.
8. Machines that recirculate wash water shall have replacement water added continuously. Chlorine sanitizing rinse water may be used as part of the replacement water (this includes quaternary compounds or sanitizing compounds recognized as equivalent to the concentration level equal to that of active

chlorine). Iodine rinse water may not be used as replacement water, but must be discharged directly to a drain.

9. Waste water from washers shall be piped directly to a drain.
10. All eggs are to be reasonably dry before packaging.

Please Note: When the washing of eggs is interrupted for periods in excess of 15 minutes, with washing solution in the reservoir or being returned to the reservoir, the access lids on top of the washer shall be lifted to prevent negative impact on the eggs remaining on the conveyor inside the washer. Alternatively eggs can be removed from the conveyor inside the washer.

B. Alternative Shell Egg Washer Inspections

The washing solution reservoir is considered a component of the egg washing system and must be properly cleaned and inspected daily. Unsanitary conditions in the reservoir could contribute to the presence of spoilage microorganisms and pathogens. Section 56.3 of the Regulations Governing the Voluntary Grading of Shell Eggs provides for the authorization to conduct experimental work to assess new procedures and advanced technology. Based upon the authority contained in Section 56.3 of the regulations, Poultry Programs can consider a written request from plant management to reduce the frequency of USDA inspection of the egg washer system reservoir(s). The written request must describe in detail the performance-based program designed to consistently clean the washer reservoir, and the daily procedures performed by a designated company employee to verify cleanliness of the equipment, document observations, and record any corrective action. The Federal-State supervisor and the USDA grader shall be responsible for reviewing any request for an alternate frequency of inspection of the egg washer system.

1. Plant management must provide the Federal- State supervisor and the USDA grader, in writing, the company's Standard Operating Procedure (SOP) for cleaning and inspection of the egg washer reservoir. The SOP will describe the approximate concentration of the cleaning solution (amount of specified cleaning compound and water), the re-circulation time in the washer unit, the company personnel responsible for inspection and documentation of cleanliness, and the record(s) maintained. The submission from plant management shall also identify the level of the frequency of inspection (not to exceed monthly) requested.
2. The records maintained by plant management must demonstrate conformance on a continuing basis with the written SOP, document any corrective action required, and illustrate the initials of the company employee responsible for daily inspection and verification of the performance-based program. The records may consist of written documents or a combination of written and mechanical recordings. Any modifications to the SOP or recordkeeping process shall be immediately discussed with the USDA grader to assess if any additional USDA evaluation is necessary. The SOP and all company records related to this performance-based program to reduce the frequency of inspection of the washer

reservoir will be available for review upon request from a USDA representative. Any company records applicable to the cleaning and inspection of the subject equipment following the previous day's production must be available to the USDA grader prior to processing.

3. When approval is granted by the Federal-State supervisor to conduct experimental work for reducing the frequency of inspection of the washing solution reservoir, inspection by the USDA grader for cleanliness and continued conformance with the proposed SOP will be established at the levels outlined below to collect information.

- a. Initially, the USDA grader will confirm the cleanliness of washing solution reservoir while conducting the daily pre-operative inspection of the facility and equipment. Results of the inspection of the reservoir during the evaluation period(s) will be documented on the Form PY-74. When observing the completion of a satisfactory history of conformance with the company's proposed performance-based program for ten consecutive days of processing eggs, the Federal-State supervisor may authorize reducing the frequency of inspection of the washing solution reservoir to weekly USDA inspection.

Information regarding the authorization to conduct experimental work, the company's performance-based program with the records for documentation, and the current level of evaluation/authorization to reduce the frequency of inspection of the washing solution reservoir shall be maintained in File Folder 2, for access by the relief grader.

If unacceptable results are observed during the initial level of evaluation or the SOP described is not being followed, the company's experimental work has failed and will be terminated. Any requests to re-establish the experimental work will require plant management to submit to the Federal-State supervisor in writing substantive changes to the performance-based program or the defined SOP, as applicable.

- b. At an acceptable weekly level of inspection, the USDA grader shall verify cleanliness of the reservoir on a weekly basis. The USDA grader will review daily the records completed by plant personnel regarding the SOP defined in the performance-based program, the daily cleaning regimen defined for the washing solution reservoir, and documented results of the company's daily inspection of the equipment meet or exceed the minimum criteria stated in the company's procedures demonstrating continued compliance.

Plant management may submit a request for approval to reduce the frequency of inspection of the reservoir to a monthly level upon establishing a satisfactory history of cleaning through eight consecutive weeks of processing.

If unacceptable results or other deficiencies are observed during the evaluation period, follow the guidance described in 3.a, above.

- c. At an acceptable monthly level of inspection, the grader shall verify cleanliness of the reservoir on a monthly basis and continue to review daily records for the performance-based program generated by company personnel as stated in item 3.b, above. If a deficiency in the program or inspection records presents a recurring problem, the USDA grader will terminate the approval and contact their immediate supervisor for guidance.

Please Note: Reducing the frequency of inspection of the reservoir beyond a monthly level is not permitted.

4. In certain geographical locations, water with an elevated alkalinity level may cause mineral deposits on exposed components within the egg washer. The daily cleaning regimen to remove soil may not be sufficient to completely remove these deposits. In official plants encountering a deposit of minerals on the egg washing equipment, the SOP must include an intensified program to remove these deposits. The degree of these conditions may require additional visual inspections of the reservoir by the USDA grader limiting the length of the period approved for a reduced frequency of inspection of the washing solution reservoir.

Failure of the company to comply with an USDA-accepted performance-based program to reduce the frequency of inspection of the washing solution reservoir, including recordkeeping elements, will result in termination of the USDA authorization to utilize the approved alternate inspection frequency.

C. Heat Exchanger

Installation of a heat exchanger(s) to maintain the washing solution temperature may be approved, subject to evaluation of construction materials and the ability to clean the equipment. The heat exchanger must be designed of material that is cleanable and will not corrode under the conditions of the intended use.

The washing solution contact surfaces must be properly cleaned and maintained in a sanitary condition. The heat exchanger must be designed to allow daily visual inspection of the interior washing solution contact surfaces. Inspection can be accomplished by removing the end caps or pipes connected to each end of heat exchanger housing and shining a bright light into the tubes. The interior of the tubes should be reasonably clean and free from evident foreign material.

Recognizing daily disassembly of the exchanger may be a burden for pre-operative inspection of equipment, plant management may request authorization for a reduced frequency of disassembly for inspection. The Federal-State supervisor and grader shall review the following information relative to equipment design, and disassembly for inspection of each unit when plant management proposes the

installation of a heat exchanger unit(s) as a component of the egg washing system.

1. Evaluate the materials used in the construction of the heat exchanger unit.
2. Determine that the installation design provides reasonable access for disassembly of the heat exchanger for inspection.
3. Daily inspection is required unless plant management requests an alternate inspection frequency.

Upon establishing a daily history that the cleaning procedures for the exchanger are acceptable, plant management may request authorization for a reduced frequency of inspection progressing from daily to a weekly, monthly and quarterly level when sanitation remains acceptable.

4. The following guidelines are provided to evaluate the request for reduced disassembly of the heat exchanger.
 - a. Plant management shall provide a written description of the cleaning regimen including identity of cleaning compound(s), concentration of cleaning compounds in solution, and recirculation time throughout system.
 - b. Plant management shall develop a daily log to documenting consistent application of the cleaning regimen verified by plant employee's initials on the log.
 - c. When sanitary conditions are acceptable upon inspection, plant management may elect to progress to the next level for establishing a reduced frequency of disassembly for inspection of the unit. Extending the frequency beyond the quarterly level will require approval from the Regional Office.

Failure of plant management to maintain the daily log or sanitary condition of the unit will result in termination of authorization to employ a reduced frequency of disassembly for inspection of the heat exchanger. The grader will maintain a record of the frequency of disassembly of the heat exchanger in file folder 2, as information available for relief graders.

D. Egg Oiler

Ideally, the equipment should dispense the oil through sprayers, brushes, foam discs, etc. Other materials used to protect eggs, such as an oil saturated cloth, paper towel, or other devices that drip oil on to a belt, are questionable methods and must be evaluated by the supervisor and grader. These methods are to be approved only if the criterion is met to apply oil in order to cover the entire egg surface is met.

If a pressurized spraying system is used to apply the oil, the grader is to determine that the unit is functioning properly by inserting a piece of stiff paper or cardboard (test material) into the spray area for the approximate amount of time an egg would be exposed. This can be done through a side access panel or by laying the test material on the conveyor and allowing the material to pass under the sprayer

at normal operating speeds. The test material can then be examined for uniform dispersal of the oil. Eggs washed in a plant after an initial shell protecting must be shell protected again after washing in order to be so described.

When the system is not in use, the oil reservoir and any portion of the delivery system (pipes, flexible hoses, etc.) must be either drained of oil or protected to prevent cross contamination. For example: Ensuring closure of pipes, flexible hoses, or the oil reservoir.

E. Water Potability Certification

1. A satisfactory water potability certification is required of each resident and temporary plant to determine that all water used in the egg cleaning process is potable. Certification will be required annually for plants utilizing water from municipal supplies and semiannually for plants utilizing well water, including wells with chlorinators. A new sample must be submitted whenever the water source is changed or when equipment is added to treat the water system. Management is responsible to provide the concentration level of the approved sanitizing compound used, the frequency of monitoring each chlorinator, and maintain records to verify conformance.
2. Laboratories providing water potability certification must be authorized by either State or local authorities. Plants must obtain and provide the grader with a letter from the laboratory listing the appropriate authorizing agency under which certification is made or, alternatively, the authorization can be noted on the laboratory report.
3. Certificates of water potability must declare that the plant's water supply is potable, safe for drinking, or otherwise acceptable in this regard. Also acceptable are analyses certifying that the plant's water supply contains less than one colony forming unit (CFU) of coliform bacteria per 100 milliliters of water. Any water analyses showing results, either microbiological or chemical which the grader cannot interpret as satisfactory, is to be referred to the Federal-State supervisor and, if necessary, to the regional office to determine acceptability.
4. Graders or Federal-State supervisors, as applicable, are required to notify plant management when the water analysis is needed. Plant management must notify the grader of their intent to collect the water sample. Plant management or a state representative will draw the water sample (The grader will observe the collection of the sample) using sterile sample containers and the following aseptic sampling techniques:

The grader will observe the collected water sample is sealed and labeled to maintain sample integrity. The water sample must be stored under refrigeration (38°F - 40°F) if it is to be held for longer than 8 hours prior to shipment. **Do not freeze samples.** Samples will be submitted by the applicant at company expense to a State or locally approved certifying laboratory. Plant management is to provide graders or Federal-State supervisors copies of each laboratory report of water analysis within 10 working days from the date the sample was taken.

The Regional Director is to be notified when reports are not received within the specified time frame. Upon notification of an unacceptable water analysis, the grader will notify the Federal-State supervisor who will, in turn, notify the Regional Director. The Regional Director, or their designee, will advise plant management of the water potability requirements and that, if the resample is found unacceptable, a recommendation to suspend certification of shielded product will be forwarded to the Director, Poultry Grading Division. The grader is to notify the Federal-State supervisor when corrections cannot be made within 10 working days from the date the results were received.

Plant management is expected to rectify the problem and have the water source retested as soon as possible, not to exceed 5 working days from the date correction(s) is made. Corrective action may include, but not be limited to, the addition of chlorinators, water treatment systems, or changing the source of water. If the resample results are unsatisfactory, the Regional Director is to notify the Director, Poultry Grading Division, and provide a summary of the plant's current and past sampling history.

To assure that water samples are submitted at the required intervals, graders are required to document water potability certifications on the Water Potability and Iron Certification Log (Exhibit IV). The log is to be filed in folder "19" in the grader's official files of each resident and temporary plant. During each supervisory visit, Federal-State supervisors are to review the log to assure compliance with these guidelines.

A copy of a current water potability report is to be sent to the National Office attached to the final Plant Survey for Shell Egg Grading, Form PY-158. Additionally, a copy of the initial report is to be provided to the grader and filed accordingly. For subsequent reports, the applicant is to provide the original copy to the grader for filing in folder "19" in the grader's official files. The water potability reports are to be disposed of 2 years after the close of the fiscal year in which they were created.

In resident plants where water treatment systems are used, the grader is to verify weekly, as a minimum, that the system is operating and that a measurable amount of potable water treatment compounds, such as chlorine or quaternary ammonia, is being added. For temporary plants, the frequency of verifying treatment systems will be determined by the Federal-State supervisor. Plant management must provide the grader or Federal-State supervisor with a test kit designed to monitor low levels of the applicable potable water treatment compound.

Chlorine, or its equivalent, must not exceed concentrations above 4 parts per million (p/m) calculated as available active chlorine, in accordance with the EPA Safe Drinking Water Standards. Concentration amounts exceeding this level are to be reported to the applicant for correction.

F. Iron Content Analysis

1. Water with iron content in excess of 2 p/m is not to be used. If the iron content is in excess of 2 p/m, it must be de-ironized continuously. A laboratory test to determine the presence of iron in the water used is required. Water samples are to be drawn in the same manner as for potability. The sample will be submitted by the applicant at company expense to any State, commercial, municipal, university, or other laboratory.

2. The water sample size and type of sampling container submitted for iron analysis is dependent on the laboratory performing the analysis. The water sample may be used by the laboratory for both potability and iron analysis. The iron content analysis may also be shown on the potability report in lieu of a separate report.
3. Initial iron content reports shall be required for all new plants. Thereafter, annual reports will be required for all plants utilizing water from municipal supplies and semiannually for plants utilizing well water. A new sample shall be submitted any time the water source is changed. Graders are required to document the results of iron content analysis on the Water Potability and Iron Certification Log (Exhibit II). Graders are to contact a supervisor for guidance immediately upon receipt of an unsatisfactory report.
4. A copy of the initial iron content report is to be sent to the National Office attached to the final shell egg facility survey form. Copies of the initial report will also be provided to the grader and applicant. For subsequent reports, the original copy is to be filed by the grader with a copy to the applicant.
5. Analysis of the iron content of the water supply will be stated in either parts per million (p/m), milligrams per liter/gram (mg/l or mg/g), or microgram per liter ($\mu\text{g/l}$). When water analysis is reported in terms other than p/m, determine iron content level as follows:
 - a. Analysis reported in milligrams per liter is equivalent to parts per million. For example, iron content of 1 mg/l converts to 1 p/m.
 - b. Analysis reported in either milligrams per gram can be converted into parts per million by multiplying the reported number by one thousand. For example, iron content of .001 mg/g multiplied by 1000 converts to 1 p/m.
 - c. Analysis reported in microgram per liter can be converted in parts per million by dividing the reported number by one thousand. For example, iron content of 1780 $\mu\text{g/l}$ divided by 1000 converts to 1.78 p/m.

G. Shell Egg Sanitizing

1. All eggs are to be spray rinsed after washing with water having a temperature equal to, or warmer than, the temperature of the wash water and containing an approved sanitizing compound.
2. A clear water rinse is required after sanitizing with iodine.
3. Sanitizers shall maintain an effective concentration level of 100 to 200 maximum p/m of available chlorine or its equivalent. Iodine compounds shall

maintain concentration levels between 12.50 to 25 p/m of titratable iodine. The titration method is to be used two times per shift, per machine, to test the sanitizing solution. It is permissible to use litmus test strips at other times during the shift for informational purposes. Storage of titration kits and litmus test strips shall follow the manufacturer's guidelines to assure accuracy.

Protective equipment provided by plant management including, general purpose gloves and safety glasses are to be used by shell egg graders when monitoring the concentration of shell egg sanitizing solutions. Alternatively, plant employees may be trained to perform the testing under the direct supervision of the grader. The results are to be documented on the grader's worksheets, as applicable.

When test results indicate (company or USDA tests) that the minimum concentration level is not acceptable, plant management must take immediate corrective action. Failure to restore a minimum concentration level within 15 minutes will result in removal of official certification on product being packaged.

It is the responsibility of plant management to maintain sanitizing equipment in operating condition at all times. This may necessitate keeping an inventory of spare parts available to assure compliance with this requirement.

4. Quaternary ammonium compounds, when approved for the intended use, may be applied to eggs as a disinfectant/sanitizer for the surface of the shell. The concentration level applied must provide the equivalent of 100 to 200 p/m active chlorine. The test kit provided must be specific in determining the concentration level of the quaternary ammonium compound used (refer to the manufacturer's instructions). The manufacturer/distributor can assist plant management in providing appropriate concentration equivalent tables.

H. Ultra-Violet Light for Disinfecting Shell Eggs

1. Each shell egg processor electing to install the UV disinfection system is responsible for providing technical information and certification (letter of guarantee from the manufacturer) stating that the low pressure mercury lamp bulb used provides 90 percent emissions at a wavelength of 253.7 nanometers (2,537 angstroms equivalent). Proper disposal of the low pressure mercury lamp bulbs in accordance with applicable environmental laws is the responsibility of each processor utilizing UV irradiation.
2. The UV lamp bulb must be replaced based upon the recommended expected duration of function (life expectancy) stated in the manufacturer's specifications. Each processor must maintain a maintenance log for the UV disinfection system identifying the rotation of the UV lamp bulbs. In the event of a UV lamp bulb failure prior to reaching the recommended duration period, to prevent replacement of each bulb in the system at the end of the established

duration period, a processor may elect to maintain the dates of installation of each bulb in the UV disinfection system by recording the recommended life expectancy of each lamp bulb. The maintenance records for the UV disinfection system will be subject to review upon request from a USDA representative.

3. Only UV lamp bulbs coated to prevent potential contamination in the event of breakage of the low pressure mercury lamp may be used in the disinfection system.
4. To prevent optical damage to personnel working in plants utilizing the UV disinfection system, the safety procedures incorporated by the company requiring the unit be locked down in operating position prior to function must be maintained at all times. Any malfunction of these incorporated safety measures must be addressed immediately by the egg processor or use of the UV disinfection system in the official plant will be discontinued.
5. Recognizing that the UV emissions area is directly exposed to the product, the sanitation of the disinfection unit (both interior and exterior) must be maintained in an acceptable condition and is subject to preoperative inspection by the USDA grader assigned to the egg processing plant.
6. When used as an alternate for the application of a chemical sanitizer solution, the UV disinfection system must be installed downstream from the wash and rinse cycle chamber on the egg grading and packaging system. Additionally, the eggs must be reasonably dry when entering the UV disinfection system. Shell eggs treated with UV radiation as stated in the applicable FDA regulation and these provisions are eligible to be identified with the USDA grademark.

I. Ozone Use as an Antimicrobial Agent

1. **Application as a shell egg sanitizing agent** – Ozone, in an aqueous solution (ozone and water), must be maintained at a level ranging from 0.50 parts per million to a maximum level of 2.00 parts per million. The processor is responsible for providing a titration test kit to determine the equivalence with the required concentration of available active chlorine (100 to 200 parts per million) authorized for use to sanitize shell eggs. Residual aqueous solution of ozone and water may be recovered to the egg washer solution reservoir.
2. **Application to treat water for processing food** – when used as an antimicrobial agent to disinfect water in accordance with the National Safe Drinking Water (NSDW) Act, promulgated by the Environmental Protection Agency (EPA), the amount of ozone applied to the water system is dependent upon whether the source:
 - a. Contains surface or previously treated water
 - b. If filtered prior to disinfection

c. Any evidence of fecal contamination

Recognizing that the State retains discretionary authority to require modified monitoring, analytical, performance, reporting, and recordkeeping requirements, the USDA grader will rely on guidance issued to plant management by State authorities for the use of ozone to disinfect water for the processing of shell eggs.

When an ozone treatment system is located in an official egg processing facility, plant management will provide access, upon request of a USDA representative, to the State-accepted ozone disinfection procedures, and the monitoring and recorded data to demonstrate continued conformance. Records for the ozone treatment system must be retained by plant management as required by the applicable EPA regulations.

Observation of failure by plant management to comply with the required State procedures for use of ozone to disinfect water will require the USDA grader to contact the responsible Federal-State supervisor. The Federal-State supervisor will immediately contact the Regional Office and the National Office staff for guidance.

3. **Safety** - The USDA grader will observe plant personnel monitoring the concentration level of ozone in aqueous solution (injected into potable water) when used as a sanitizing agent. The concentration level will be monitored at the USDA frequency required for a shell egg sanitizing solution.

Ozone can cause extensive damage when in direct contact with human tissue. Therefore, plant management shall be responsible for collecting samples of the ozone solution to determine the concentration level to be applied as a sanitizing solution. The processor is responsible for compliance with applicable safety requirements, and installation design and handling practices as specified by OSHA and State regulations.

VI. Approval of Compounds

Only approved cleaning and sanitizing compounds may be used in official resident or temporary plants. To assure that only approved compounds are used for the purpose intended, plant management must provide the grader or Federal-State supervisor, as applicable, with a written guaranty stating that each compound used in the shell egg processing plant complies with Federal food laws and regulations, and can be legally used in the shell egg processing plant for the purpose intended. Responsibility for providing Letter of Guarantees rests with the firm whose name appears on the product as it is marketed to the plant. Letter of Guarantees must contain the following information:

- A. Name and address of the manufacturer of the compound
- B. Brand name or other means by which the compound is identified

- C. Intended use of the compound; (specific application for shell eggs)
- D. Statement that the compound complies with either:
 - 1. The Federal Food, Drug, and Cosmetic Act;
 - 2. Federal Insecticide, Fungicide, and Rodenticide Act;
 - 3. The requirements of 21 CFR 110.35 (b) Substances Used in Cleaning and Sanitizing; Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food; or
- E. Statement that, if used according to the instructions, the compound will have no adverse effect on the eggs being processed; and
- F. Signature of an official representing the manufacturer of the compound.

As an option, plant management can provide the chemical manufacturer a copy of the Notice of Guarantee for Approval of Compounds (Exhibit III) to assist them in meeting the requirements. The reverse side of the notice list the common categories of compounds used in shell egg plants. In addition to the guaranties, the Material Safety Data Sheet (MSDS) for each compound used in the plant must be made available for review by the grader and/or supervisor. The grader or supervisor retains the authority to refuse specific compounds that they determine unsafe or may cause product adulteration.

Once approved, graders are required to document each compound being used on the Chemical Compound Log (Exhibit IV). The log and letters of guarantees are to be filed together in folder “2” of the graders’ official files. Gradgers will periodically review the compounds used at their location to assure the log is current and accurate. During routine plant visits, supervisors are to review the chemical compound approval process to assure that the procedures outlined in this policy are being applied.

As an option, plant management may provide proof of official approval of a nonfood compound by accessing the National Sanitation Foundation (NSF) through the Internet at www.nsf.org. A printed copy of the product listing for each nonfood compound must be provided to the grader and is to be entered on the Chemical Compound Log.

When a USDA representative identifies that a nonfood compound is not approved for use for cleaning, de-staining, sanitizing, coating, marking shell eggs or treating water (water softener, chlorinators and boilers), and equipment lubricants used on indirect contact areas plant management shall be notified. If an unapproved nonfood compound is being used, all eggs identified with the USDA grademark exposed to the compound must be retained. Plant management must issue an immediate recall of any officially identified eggs shipped that were exposed to an unapproved nonfood compound.

When plant management continues to process and distribute non-officially identified eggs using the identified nonfood compound and/or product has been shipped, the grader will contact their immediate

supervisor.

The Federal-State supervisor shall prepare the Interagency Referral Report for transmission to the National Office. Additionally, the supervisor shall contact the District Office of the Food and Drug Administration to notify that agency of the risk of contamination of the eggs distributed in commerce. If plant management requests to remove the unapproved nonfood compound to continue processing eggs identified with the USDA grademark, the exposed equipment shall be cleaned prior to resuming operations.

VII. Plant Sanitation

Basic to all operations in food plants required by both the shell egg regulations and the Food and Drug Administration is the requirement that all processing be conducted so that the product will not be adversely affected, especially with respect to wholesomeness.

A. Responsibility for Plant Sanitation

Plant management, in both resident and temporary plants, is responsible for producing shell eggs under sanitary conditions. It is plant management's responsibility to assure that processing equipment and rooms are thoroughly cleaned each day and maintained in a sanitary condition during each operating shift. All buildings, rooms, premises, and other facilities shall be sanitarily maintained and in good repair.

Please Note: This requirement applies whether the plant is processing and packaging eggs identified with the USDA grademark or not.

Additional guidelines specific to temporary plants can be found in R-3, Records, in the Supervisors/Resident Graders General Index.

B. Sanitation Inspection Standards

Graders must be thoroughly familiar with the standards of sanitation and cleaning frequencies prescribed in the regulations, continually monitor product handling and general condition of equipment, and housekeeping throughout the facility, i.e. (floors, trash removal, etc.), to assure that acceptable sanitation is maintained, and identify sanitation problems requiring corrective action. Graders must be familiar with the normal operating problems and related unsanitary conditions typically associated with processing shell eggs in order to establish priorities for initiating corrective action. Graders must make well-reasoned decisions in obtaining correction of unsanitary conditions by taking into consideration the significance of the problem and the need for immediate action. The sanitation terms "critical," "noncritical," and "reasonably clean" are to be used when evaluating a plant's sanitation program as defined below:

4. **Critical Sanitation Problems** - Critical noncompliance conditions involve sanitation deficiencies that, if allowed to continue, present a high risk or will result in a detrimental effect to the product through direct contact or exposure with the unsanitary equipment or condition. Generally, any equipment downstream of the egg washer (wash and rinse cycle) with direct surface

contact with eggs is classified "critical". Critical sanitation issues that cannot be corrected prior to the start of operations due to the complexity of repair required must be corrected within 24 hours. If a facility will not be able to correct a critical area within 24 hours, plant management will contact the Federal-State supervisor for approval of an alternative timeframe

5. Noncritical Sanitation Problems - Noncritical conditions are sanitation deficiencies that are not likely to materially affect product quality but, when allowed to continue or combined with other noncritical conditions, may result in diminished product quality. These conditions do not normally require that certification of product be withheld but should be cleaned within a reasonable period of time. When the grader and plant management cannot reconcile a timeframe the grader will defer the issue to the Federal-State supervisor.
6. Reasonably Clean - The term "reasonably clean" is used in the regulations to describe conditions when less than complete cleaning is necessary or possible. By definition, this term means a state of cleanliness which will not obviously create a contamination hazard or visibly soil the product. For example: Grading and packing rooms should be thoroughly clean before the start of operations and kept reasonably clean during operations. Likewise, certain candling, weighing, and packing equipment cannot be wet cleaned. In such cases, this equipment is kept reasonably clean using brushes, scrapers, and compressed air, etc. The buildup of egg or the presence of visible mold growth would be unacceptable because a contamination hazard obviously exists. Sanitation deficiencies exceeding the standard of "reasonably clean" shall be handled as critical or noncritical depending on the conditions involved.

C. Pre-Operative Sanitation Inspections

Pre-operative inspections of equipment and facilities are to be completed at all official plants, resident and temporary, regardless of the type of grading performed. Graders will be responsible for conducting these pre-operative inspections prior to the startup of operations. For resident plants, pre-operative inspections are to be conducted on a daily basis and for temporary plants, conducted each day of official grading activity. Grading activities at temporary plants should be scheduled so that the pre-operative inspection can be completed prior to startup of operations. If scheduling cannot be adjusted accordingly, the temporary plant has the option to proceed with processing and, prior to official grading, cease processing, change the wash water, and complete a thorough cleaning of all critical items listed on the Form PY-74, Pre-Operative Shell Egg Sanitation Report (Exhibit V). After cleaning, the grader will conduct an inspection and determine if the equipment meets established sanitation requirements.

The time allotted for pre-operative inspections is to be determined by the Federal-State supervisor based on the condition of the plant, the number of processing machines, and the plant's sanitation history. As a guideline, 15 to 30 minutes prior to start-up should be appropriate. Upon approval by the Regional Director, additional time may be authorized when it is deemed necessary to assure sanitation compliance. Regardless of the time allotted, plants are to be billed for this additional time unless the grader's tour of duty can be adjusted to include the pre-operative inspection. When

conducting pre-operative inspections always start with the critical areas and as such the cleanest areas to minimize contamination first before inspecting the non-critical areas the following inspection sequence is suggested:

1. Washer compartments, nozzles, and brushes
2. Packing and packaging equipment
3. Mass scanning equipment, scales, and processed egg conveyers
4. Egg oiling equipment (if applicable)
5. Egg drying equipment
6. Pre-wash loaders, conveyers, and orientors
7. Processing rooms
8. Coolers and storage areas
9. Outside premises and refuse handling areas

Results of each pre-operative inspection are to be recorded on Form PY-74. All sanitation deficiencies are to be documented in the "Remarks" section of the form. List each specific deficiency, the management official contacted, the corrective action taken, and the time the action was taken. Items identified as noncritical on the Form PY-74 may be re-classified by the grader as critical when unsatisfactory conditions are of such magnitude as to constitute a serious health hazard or as a result of gross negligence. Graders are to discuss all non-compliances with the designated management official and request that they acknowledge the discussion by initialing the form. If the designated official refuses to initial the form, the grader is to document the individual's name on the form. Sanitation problems occurring during the production shift must be recorded when they are observed.

When a deficiency is a non-critical item that requires a significant amount of time to properly repair or completely correct but action has been taken to assure general sanitary conditions are maintained, the minimum corrective action and projected completion timeframe stated by plant management shall be recorded. When the corrective action is completed return to the initial documentation on the Form PY-74 to record closure of the non-conformance items.

Alternatively, a reference on the current Form PY-74 and corrective action can serve as appropriate documentation. In the event that plant management cannot complete the corrective action in accordance with the established timeframe, contact the immediate supervisor for guidance. Exhibits VI and VII explain the proper way to document sanitation deficiencies on the Form PY-74.

Please Note: If a specific, detailed sanitation violation occurs in the same location (the same item listed on the Form PY-74) for three consecutive days and presents a risk of cross contamination to the eggs, the violations must be documented and reported to the supervisor, who will report the violation through FDA's Interagency Referral Report worksheet (refer to Section 03, Exhibit III).

The following is an example of documentation for a detailed recurring violation:

Monday – Adhering material (Fecal) observed on product contact surface area of Packer Head # 5, clamshells. (Disposition - Plant management (Susan Manager) corrected the affected area prior to start up).

Tuesday – Adhering material (Fecal) observed on product contact surface area of Packer Head #5, clamshells. (Disposition - Plant management (Susan Manager) corrected the affected area prior to start up).

Wednesday – Adhering material (Fecal) observed on product contact surface area of Packer Head #5, clamshells. (Disposition - Plant management (Susan Manager) corrected the affected area prior to start up).

Observation of the violation on the third consecutive day is justification for reporting the sanitation violation through supervisory channels. The shell egg grader must advise plant management of the necessity for issuing the report. Documentation on official sanitation reports (description of detailed violation and name of plant management notified) must support this action.

A minimum of twice per year, Federal-State supervisors should accompany graders on pre-operative inspections to determine the thoroughness of the inspection and assure uniformity in applying inspection criteria. Additionally, supervisors are to review all sanitation reports completed since the previous visit to assess the plants overall sanitation compliance and determine if any additional action is needed. Plants with a continuous history of sanitation non-compliances are to be referred to the Regional Director who will consult with the Director, Poultry Grading Division, to determine any additional actions in accordance with the regulation.

10. Distribution

The Form PY-74 is to be distributed as follows:

- a. Original copy in folder "4c" of the grader's official file
- b. One copy to plant management (optional as approved)
- c. One copy to appropriate supervisor (optional)

D. Packaging Material Storage Areas

All primary packaging material that comes into direct contact with the egg must be maintained in a sanitary condition at all times. Packaging must be kept off the floor and wrapped/covered to maintain sanitary conditions until it is prepared for immediate use.

E. Sanitation and Ambient Refrigeration of Transport Vehicles

Sanitation and ambient refrigeration of transport vehicles not covered by specifications are the

responsibility of the shipper. USDA graders are not responsible for certifying to the cleanliness or good repair of shipping vehicles unless required by a specification or export instruction. However, if during the course of the daily duties, improper or unsanitary conditions, or the loading of eggs on transport trailers without a refrigeration unit are observed in shipping vehicles, the grader should notify a responsible plant official. The grader should then document the situation including the name of the plant official notified on their worksheet for that day. No further action is warranted by USDA.

VIII. Cooling Facility Requirements

Coolers in all official plants, including temporary plants, used for processed eggs must be capable of maintaining an ambient air temperature of 45° Fahrenheit or lower. Since this is a facility requirement, it is applicable to all processed egg coolers, not just coolers storing officially graded eggs.

A. Cooler Verification

When checking cooler temperatures, graders may use the thermometers provided and placed in the coolers by the applicant. These thermometers should be placed in areas where product is stored but not in front of doorways or refrigeration units. If multiple thermometers are available, the temperature is to be reported as an average. For resident and temporary plants, temperatures for each cooler are to be checked twice (approximately every 4 to 5 hours) during the production shift and recorded on the reverse of Form PY-75.

During periods of product loading or unloading, the cooler temperature may increase to 50° Fahrenheit provided the temperature is not above 45° Fahrenheit for more than 4 hours. Graders are to advise plant management each time cooler temperatures exceed these criteria. Coolers not in use during seasonal periods or coolers where it is apparent that there is no intention to store eggs are not to be checked or reported as non-complying.

When the cooler temperature exceeds 45° Fahrenheit, the grader must notify plant management to take corrective action. If the ambient temperature is not being reduced effectively to the 45° Fahrenheit level within 2 hours of notification, plant management must implement procedures to transfer the shell eggs to a compliant refrigerated storage area. Repeated cooler temperature non-compliances with no apparent corrective action by plant management are to be reported to the Federal-State supervisor.

B. Thermometer Certification

The accuracy of the plant's cooler thermometer needs to be verified by as follows:

1. Certified Test Thermometer –These certifications are good for one year. When the certification period expires or the thermometer becomes damaged, the Federal-State supervisor is to order a new certified test thermometer. The old thermometer can no longer be used and since it does not contain mercury can be discarded in any trash receptacle.
2. Digital Thermometer– The accuracy of each digital thermometer is to be verified by the Federal-State supervisor or assigned representative at least annually. This is to be accomplished by comparing the temperature readings of the digital

thermometer, coupled with the immersion probe, with a certified test thermometer. A certified digital thermometer can be used to verify the accuracy of another digital thermometer.

To verify accuracy, collect a test medium from tap water. While agitating the water, read both thermometers for comparison. If there is more than a 1°F difference, the Federal-State supervisor is to request a new digital thermometer thru the regional office. If the temperature of the digital thermometer is within 1°F of the test thermometer, the digital thermometer is considered accurate. After each verification test, the results are to be documented on Form PY-227, Employee's Performance Record, or other forms of documentation approved by the Regional Director.

3. Grader's Pocket Thermometer – The accuracy of the grader's metal stem pocket thermometer (including any back-up thermometers) is to be verified by the Federal-State supervisor or assigned representative on a semi-annual basis. This is to be accomplished by collecting a test medium from tap water. With continuous agitation, place the digital thermometer and the pocket thermometer in the center of the water bath. After the temperature of both thermometers has stabilized, read and compare the temperatures to assure that they are within 2°Fahrenheit of each other.

If there is more than a 2°Fahrenheit difference, the pocket thermometer must be adjusted or replaced. In either case, the thermometer must be re-tested for accuracy. After each verification test, the results are to be recorded on the Form PY-227 or other forms approved by the Regional Director.

During periods between the semi-annual verification when the grader suspects that the pocket thermometer is not accurate or they have been provided a new thermometer which has not been certified as accurate, they are to use the following method:

Prepare an ice water bath (mixture of ice and water). With continuous agitation, immerse the pocket thermometer in the center of the water bath. After the thermometer temperature has stabilized, the temperature reading should be between 31°Fahrenheit and 33°Fahrenheit. If the temperature is out of the accepted range, the thermometer cannot be used and must be adjusted or replaced.

After the test has been performed, the results are to be recorded on the Form PY-75. During the next supervisory visit, graders are to request supervisors to formally re-test the pocket thermometer as outlined in item 3. If the temperatures are within 1° Fahrenheit of each other, the pocket thermometer is considered accurate.

C. Refrigeration of Product

The Regulations Governing the Voluntary Grading of Shell Eggs 7 CFR Part 56.76 F.1 states that "Shell eggs that are to be officially identified as U.S. Grade AA, A, or B shall be placed under refrigeration at an ambient temperature no greater than 45° F (7.2°C) promptly after packaging". This statement means that all processed shell eggs, whether identified with the USDA grademark or not,

must be placed under refrigeration within 4 hours after packaging or at the end of the processing day, whichever comes first. For approved shifts longer than 8 hours, the timeframe may be extended proportionately. Graders can use the time listed on the USDA Sample Sticker as a general guide in determining compliance. Obvious noncompliance with this requirement is to be reported to management and documented on the Form PY-75. When continuous non-compliances are noted, the grader is to review these occurrences with the Federal-State supervisor during the next supervisory visit. The Federal- State supervisor will consult with the Regional Director to determine what future corrective action is to be taken.

To prevent the sweating of shell eggs, packaged product that has been placed in coolers may not be removed from refrigeration except for immediate processing/reprocessing, packaging, shipment, or for USDA use of cooler samples.

IX. Surveillance Responsibilities - Resident, Temporary, and Fee Graders

The Regulations, 7 CFR Part 57 require quarterly visits to all egg handlers (producer/packers, grading stations). In official shell egg plants, the Federal-State supervisor or designated USDA representative will conduct these quality inspections. The Federal-State supervisor may request assistance as follows:

- A. Resident graders may assist the supervisor or their assistants in carrying out the quarterly shell egg surveillance inspections required by the EPIA. Copies of the quarterly surveillance reports, Form PY-156, prepared jointly by the supervisor and grader, are to be filed in folder "21" in the grader's official files. In instances where a violation requires submission of a copy of the Form PY-156 to the Regional Office, the supervisor is to make a machine copy for his file.
- B. Graders may also assist the supervisor in the releasing of product retained during quarterly surveillance visits. When observing the reworking and releasing of retained product or when retained product is transferred from the point of retention and released to an egg products plant or other egg handler, graders are to follow the guidelines for handling retained product outlined in Sections 7 and 8 of this handbook.
- C. All graders are responsible to assure that labeling of restricted eggs (checks, dirties, and spots) is correct and applied at point and time of segregation. The EPIA requires that eggs classed as "restricted eggs" (dirties, checks, leakers, loss, inedible) be labeled with required information as outlined below:
 - 1. Shipping containers of restricted eggs must bear the packer's name, address, and zip code, or a corporate name and address and other egg packer identification codes approved by the National Office, and the type of restricted eggs in the container (e.g., dirties, checks, inedible, or loss); and
 - a. For Checks and Dirties: "Restricted Eggs-- For Processing Only in an Official USDA Egg Products Plant."

- b. For Inedible and Loss Eggs in Shell Form: "Restricted Eggs-- Not to be used as Human Food."
 2. The required wording on the label must be conspicuous and legible. The name, address, and zip code of the packer need not appear on the label if it appears elsewhere on the container. See Exhibit VIII for examples on the labeling of restricted eggs.
- D. All graders are to assure that inedible eggs and egg products are handled according to accepted procedures, denatured when applicable, properly labeled, etc.
 1. Labeling - The EPIA requires that all inedible, unwholesome, or adulterated egg products be labeled with certain required information. The collection containers of inedible egg products at the point and time of segregation need only be labeled with the word, "Inedible" unless they are used as the final shipping container. In this case, the containers shall be legibly identified as, "Inedible Egg Product-- Not to be used as Human Food."

Note: The name, address, and zip code of the packer or distributor must appear on the label or container (See Exhibit VIII). Alternate procedures for labeling inedible collection containers may be authorized by the Federal-State supervisor.

2. Denaturing - Containers of liquid egg products need not be denatured or decharacterized at the point and time of segregation unless they are used as the final shipping container. Sufficient denaturant must be used to make it readily evident, either visually or by odor, that the eggs or egg product is unfit for human consumption.

Proper mixing of denaturant cannot be accomplished by adding the color powder to the top of the barrel of egg. To properly denature/de-characterize inedible egg in a barrel product should be added in liquid form, in stages, as the container is filled.

Inedible shell eggs must be denatured or de-characterized at the point and time of segregation. Inedible and loss eggs that are to be transported in the shell form from the point of segregation must be decharacterized or denatured by coloring the shells with a sufficient amount of Food, Drug, and Cosmetic (FD&C) dye to give a distinct change of appearance or by applying a substance that will penetrate the shell and de-characterize the egg meat.

- a. Satisfactory Denaturants for Shell Eggs
 - (1) FD&C black, blue, green, or red dyes
 - *(2) Aromatic cedar, eucalyptus, pine oil, fish oil or wintergreen
 - b. Satisfactory Denaturants for Liquid Eggs Only
 - *(1) Caramel, brown, black, blue, or green dyes

- * (2) Meat and Fish by-products (non-deodorized)
- * (3) Ground grain and milling by-products
- * (4) Beet meat and pulp
- * (5) Fish oil, aromatic, cedar, eucalyptus, pine oil, or wintergreen

c. Other Denaturants

* Requests to use denaturants, other than those listed, which will distinctively render the shell eggs or egg products because of appearance or odor, as unfit for human consumption, may be submitted to the National Office for comment and/or approval.

- E. Generally, resident or temporary personnel will be primarily occupied with checking officially identified product to assure that it is in compliance with the marked grade.

Occasionally, management will request the grader to check non-identified product for quality control purposes. Additionally, resident, temporary, and fee graders are often requested to sample and grade stationary lots of eggs that have not previously been officially identified. Under any of these circumstances, if the grading shows the lot, or a portion of the lot, to exceed the restricted egg tolerances (based on a full size sample) for U.S. Grade B, the grader is required to place the product under retention until it is brought into compliance with the Act. Prior to conducting these types of gradings, the grader shall advise management of these responsibilities and the applicable tolerances that will be applied.

During the grading process, graders are to immediately notify plant management when U. S. Grade B restricted egg tolerances have been exceeded. Under these circumstances, management has the option of discontinuing the grading or continuing sampling up to an official sample size.

1. For stationary lots where a full representative sample has been examined, the entire lot is to be retained. When the grading is prematurely terminated by management, the product representing the samples examined is to be retained using the following criteria:
 - a. For unitized loads (pallets, racks, etc.), retain all product on the specific unit from which each sample originated. For example, if samples #1 and #2 exceed the tolerances and were selected from pallets one and two of a five pallet lot, pallets one and two are to be retained.
 - b. For product that has no distinct unitization, segregate the lot proportionately into 30 case sublots and retain only the sublots from which the samples originated. For example: If the original lot consists of 240/15-dozen cases stacked on the floor, the grader, for retention purposes, would consider the lot to be four, 30 case sublots.

If samples 1 and 2 exceeded EPIA tolerances and were selected from sublots one and two and the grading was terminated, these sublots would be retained. Additionally, when lots are less than 30 cases, the entire lot is to be retained.

Retention procedures and release of retained product is to be handled as outlined in this Section and Section 8 of this handbook. Time and expenses for releasing product at temporary and fee locations is to be handled and accountable under the surveillance program.

X. Shipping of Non-Denatured Inedible Egg Products

The overall responsibility for handling and monitoring the movement of this product to pet food plants, further processing plants, and warehouses is the responsibility of FSIS. Each producer of non-denatured inedible egg product is to be advised of their responsibilities in handling such product.

A. Responsibilities of Plant Management

1. Following approval, management in official USDA plants shall advise the grader or surveillance inspector when they wish to accumulate and ship non-denatured inedible shell eggs or egg products. Non-denatured inedible products may not be accumulated in non-USDA plants or in plants utilizing temporary resident shell egg grading service since USDA cannot continuously monitor and control inedible product located at these locations.
2. Edible and inedible products must be segregated in the official plant and in the shipping vehicle for product control and positive identification. Liquid product to be shipped in bulk must be held in specially designated tanks or vats.
3. When management has been granted permission to ship non-denatured product, each primary container and master or bulk container shall be legibly identified as follows:
 - a. Egg products example- "Non-denatured Inedible Egg Products - **NOT TO BE USED FOR HUMAN CONSUMPTION.**" Name and address of packer or distributor.
 - b. Shell eggs example- "Non-denatured Restricted Eggs - **NOT TO BE USED AS HUMAN FOOD.**" Name and address of packer or distributor.

B. Origin Inspector Responsibilities

1. The "balance on hand" figure shall be verified by actual count at least once each week, dated, and initialed by the inspector.
2. When non-denatured inedible egg products or shell eggs are to be shipped from one official plant to another, the inspector must personally seal the shipment and prepare Form PY-210S.

DAY OF THE YEAR CHART

DAY OF MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

LEAP YEAR -- Advance all dates after February 29th by one day.
Use this chart to determine the consecutive day of the year.

Notice of Guarantee
For
Approval of Compounds

To assure that only approved compounds are used for the purpose intended, this notice of guarantee is being provided certifying that the listed compound(s) complies with all applicable Federal Food laws and may be used in official resident or temporary shell egg plants.

1. Name and address of the manufacturer of the compound(s):

2.

Name of Compound	Category Code*	Regulatory Authority Code**
1.		
2.		
3.		
4.		
5.		
6.		

* See reverse for most commonly used category codes.

**Regulatory Authority Codes (list as applicable):

- (A) Federal Food, Drug, and Cosmetic Act (cite section of regulations)
- (B) Federal Insecticide, Fungicide, and Rodenticide Act
- (C) The requirements of 21 CFR 110.35 (b) Substances Used in Cleaning and Sanitizing; Current Good Manufacturing Practice in Manufacturing, Packing, or Handling Human Food
- (D) Food Safety and Inspection Service Sanitation Performance Standards Compliance Guide

3. Material Safety Data Sheets (MSDSs) attached () Yes () No

Manufacturer's Certification: I certify that, if the above listed compound(s) are used according to the instructions outlined on the label, comply with applicable Federal food regulations and the compound(s) will have no adverse effect on the eggs being processed. I understand that USDA retains the authority to refuse specific compounds that they determine unsafe or may cause product adulteration.

Signature: _____

Title and Date: _____

Category Code Letters

Exhibit III (Reverse)

Code Letters	Conditions For Use	Code Letters	Conditions For Use
A1, A2 A3, A4	Cleaning Compounds Compounds for use as general cleaning agents on all surfaces, or for use with steam or mechanical cleaning devices in all departments. Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, all surfaces must be thoroughly rinsed with potable water.	G1, G2, G3	Water Treatment Compounds Compounds used in such treatment should not remain in the water in concentrations greater than required by good practice.
		G7	Compounds for treating boilers, steam lines, and/or cooling systems where neither the treated water nor the steam produced may contact edible products.
D1	Antimicrobial Compounds Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. After using these compounds, surfaces must be thoroughly rinsed with potable water before operations are resumed. The compounds must always be used at dilutions and according to applicable directions provided on the EPA registered label.	H1	Lubricants These compounds may be used as a lubricant with incidental food contact. Such compounds may be used on food processing equipment as a protective anti-rust film, as a release agent on gaskets and as a lubricant for machine parts and equipment in locations in which there is potential exposure of the lubricated part to food. The amount used should be the minimum required to accomplish the desired technical effect on the equipment. If used as an anti-rust film, the compounds must be removed from the equipment surface by washing or wiping.
D2	Before using these compounds, food products and packaging materials must be removed from the room or carefully protected. A potable water rinse is not required following the use of these compounds for sanitizing previously cleaned hard surfaces provided that the surfaces are adequately drained before contact with food.	H2	These compounds may be used as a lubricant, release agent, or anti-rust film on equipment and machine parts or in closed systems in locations in which there is no possibility of the lubricant or lubricated part contacting edible products.
E1, E2	Employee Hand Care The compounds must be dispensed from adequate dispensers located a sufficient distance from the processing lines to prevent accidental product contamination. The hands need not be washed prior to the use of the compounds. After the use of the compounds, the hands must be <u>thoroughly rinsed with potable water.</u>	Q1	Compounds For Use On Shell Eggs Eggs that have been washed with these compounds shall be subjected to a thorough rinse of warm potable water containing as accepted sanitizer.
E3	The compounds must be dispensed from adequate dispensers located a sufficient distance from the processing lines to prevent accidental product contamination. The hands must be washed and thoroughly rinsed prior to sanitizing with the compound. The compound may be injected into the wash and rinse water. The hands need not be rinsed with potable water following the use of the compound.	Q2	Eggs that have been destained with these compounds are to be rewashed and spray rinsed with warm potable water containing an acceptable sanitizer.
F1, F2 F3, F4	Pesticides The compounds must be used according to applicable instructions provided on the label.	Q3	These quaternary ammonium chloride compounds shall be incorporated in a warm potable water spray rinse for use in sanitizing clean or freshly washed shell eggs.
F5	Before using these compounds, all edible products and packaging materials must be removed from the room to be fumigated. After fumigation, the treated equipment and space must be thoroughly aerated to remove all vapors before graders or employees reenter the area. Food contact surfaces must be rinsed with potable water before edible products are returned to the room.	Q4	These chlorine compounds shall be incorporated in a warm potable water spray rinse for use in sanitizing clean and fresh shell eggs.
		Q5	These compounds may be used to control foam in egg washing machines. Eggs washed in water containing these compounds shall be immediately subjected to a thorough rinse of warm potable water containing an accepted sanitizer.
		Q6	These iodine compounds shall be incorporated in a spray rinse of warm water for use in sanitizing clean or freshly washed shell eggs. For freshly washed eggs, a rinse with warm potable water is required prior to application of the compound. A subsequent rinse is not required.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE POULTRY PROGRAMS, GRADING DIVISION			WEEK OF:							
PRE-OPERATIVE SHELL EGG PLANT SANITATION REPORT			PLANT NAME/NUMBER:							
NAME OF GRADER(S):										
		S = Satisfactory	U = Unsatisfactory	SUN	MON	TUE	WED	THU	FRI	SAT
I. Shell Egg Washing, Grading, and Packaging Operations and Equipment		CRITICAL	NON CRITICAL	S U						
A.	Loaders, conveyors, orienters (including any pre-rinse equipment) reasonably clean.		X							
B.	Washers, heat exchangers, nozzles, brushes, compartments, and pasteurized tanks, if applicable, reasonably clean.		X							
C.	Egg drying equipment including filters, if applicable, reasonably clean.		X							
D.	Shell protecting equipment (if applicable) reasonably clean with all reservoir openings properly closed and oil/wax free of off-odors or obvious contamination. Sanitizing equipment reasonably clean.	X								
E.	Mass scanning, scales, and egg carriage system reasonably clean.	X								
F.	Packaging equipment and conveyors reasonably clean.	X								
G.	Washing, grading, and packing equipment non-contact surface areas reasonably clean.		X							
H.	Plastic flat washers and dryers reasonably clean.		X							
II. Processing Rooms										
A.	Walls, ceilings, and floors reasonably clean.		X							
B.	Packaging and packing materials reasonably clean and free of mold, mustiness, and off-odors. Racks, bossies, pallets, and baskets reasonably clean.	X								
C.	Benches, shelves, packing tables, and conveyors reasonably clean.		X							
D.	Fixtures over packing and packaging areas are reasonably clean.		X							
III. Cooler and Storage Areas										
A.	Unprocessed egg coolers reasonably clean and free from odors. Walls, floor, and ceiling construction well maintained.	X								
B.	Processed egg coolers clean and free from odors. Walls, floor, and ceiling construction well maintained.	X								
C.	Packing and packaging storage areas reasonably clean and dry. Shielded cartons covered.		X							
D.	Chemical compound / inedible containers and storage areas reasonably clean. Chemical containers covered.		X							
IV. Processing Building										
A.	Processing facility in good repair. Tight fitting doors on all entrances.		X							
B.	Outside shipping and receiving areas reasonably clean, well maintained (minimum of 18-inch perimeter maintained around premises), and properly drained. Unused equipment stored outside is reasonably distanced from the facility.		X							
C.	Refuse removed and stored in designated area that is maintained in a reasonably clean manner.		X							
D.	Restrooms reasonably clean with functioning exhaust fans and hot water.		X							
E.	USDA grader's office and candling booth reasonably clean.		X							
F.	Inspection of premises indicates rodent and pest control program is effective.		X							
GRADER INITIALS										
PLANT MANAGEMENT INITIALS										

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE POULTRY PROGRAMS, GRADING DIVISION			WEEK OF: November 14-20, 2012								
PRE-OPERATIVE SHELL EGG PLANT SANITATION REPORT			PLANT NAME/NUMBER: Egg County Egg Farm / P-1234								
NAME OF GRADER(S): Bob Wilson Burt Dixon											
S = Satisfactory			U = Unsatisfactory		SUN	MON	TUE	WED	THU	FRI	SAT
I. Shell Egg Washing, Grading, and Packaging Operations and Equipment		CRITICAL	NON CRITICAL	S	U	S	S	S	S	S	S
A.	Loaders, conveyors, orientors (including any pre-rinse equipment) reasonably clean.		X	S	S	S	S	S	S	S	S
B.	Washers, heat exchangers, nozzles, brushes, compartments, and pasteurized tanks, if applicable, reasonably clean.		X	S	S	S	S	S	S	S	S
C.	Egg drying equipment including filters, if applicable, reasonably clean.		X	S	S	S	S	U	S	S	S
D.	Shell protecting equipment (if applicable) reasonably clean with all reservoir openings properly closed and oil/wax free of off-odors or obvious contamination. Sanitizing equipment reasonably clean.	X		S	S	S	S	S	S	S	S
E.	Mass scanning, scales, and egg carriage system reasonably clean.	X		S	U	S	S	S	S	S	S
F.	Packaging equipment and conveyors reasonably clean.	X		U	S	S	S	S	S	S	S
G.	Washing, grading, and packing equipment non-contact surface areas reasonably clean.		X	S	S	S	S	U	S	S	S
H.	Plastic flat washers and dryers reasonably clean.		X	S	S	S	S	S	S	S	S
II. Processing Rooms											
A.	Walls, ceilings, and floors reasonably clean.		X	S	S	S	S	S	S	S	S
B.	Packaging and packing materials reasonably clean and free of mold, mustiness, and off-odors. Racks, bossies, pallets, and baskets reasonably clean.	X		S	S	U	S	S	S	S	S
C.	Benches, shelves, packing tables, and conveyors reasonably clean.		X	S	S	S	S	S	S	S	S
D.	Fixtures over packing and packaging areas are reasonably clean.		X	S	S	S	S	S	S	S	S
III. Cooler and Storage Areas											
A.	Unprocessed egg coolers reasonably clean and free from odors. Walls, floor, and ceiling construction well maintained.	X		S	S	S	S	S	S	S	S
B.	Processed egg coolers clean and free from odors. Walls, floor, and ceiling construction well maintained.	X		S	U	S	S	S	S	S	S
C.	Packing and packaging storage areas reasonably clean and dry. Shielded cartons covered.		X	S	S	S	S	S	S	S	S
D.	Chemical compound / inedible containers and storage areas reasonably clean. Chemical containers covered.		X	S	S	S	S	S	S	S	S
IV. Processing Building											
A.	Processing facility in good repair. Tight fitting doors on all entrances.		X	S	S	S	S	S	S	S	S
B.	Outside shipping and receiving areas reasonably clean, well maintained (minimum of 18-inch perimeter maintained around premises), and properly drained. Unused equipment stored outside is reasonably distanced from the facility.		X	S	S	S	U	S	S	S	S
C.	Refuse removed and stored in designated area that is maintained in a reasonably clean manner.		X	S	S	U	S	S	S	S	S
D.	Restrooms reasonably clean with functioning exhaust fans and hot water.		X	S	U	S	S	S	S	S	S
E.	USDA grader's office and candling booth reasonably clean.		X	S	S	S	S	S	S	S	S
F.	Inspection of premises indicates rodent and pest control program is effective.		X	S	S	S	S	S	S	S	S
GRADER INITIALS				BW	BW	BW	BD	BD	BD	BD	BD
PLANT MANAGEMENT INITIALS				TJ	TJ	ML	ML	ML	ML	ML	ML

Guidance for Completing the Form PY-74, Sanitation Report

Use only statements of fact when reporting sanitation deficiencies. Do not exaggerate words to document your findings. Below are some examples:

Incorrect: Bugs all over in the dry storage.

Correct: Dead bugs on the floor near the trash container: **Corrected**

Reason: Bugs all over in the dry storage could be misconstrued by some persons that the dry storage area has bugs crawling on the floor, ceiling, and walls in excessive proportions. Although, that is not your intention, it may read that way.

Incorrect: Women's restroom nasty

Correct: Women's restroom has toilet paper on the floor and the sink is dirty: **Corrected**

Reason: Nasty could mean many things...excrement on the wall, toilet overflowing, etc. - the sky is the limit. The word "nasty" means different things to different people and can be read as an exaggeration of the facts.

Incorrect: Water everywhere in the cooler

Correct: Water on the floor in front of loading dock is creating a safety hazard: **Corrected**

Reason: "Water everywhere in the cooler" may be misconstrued by some persons to mean there is two inches of water on the entire cooler floor or water is dripping off the ceiling. This is not a statement of fact.

Incorrect: Egg all over machine

Correct: Egg meat and shell on the pickup bar, shells in the washers, and egg meat on the candle light:
Corrected prior to start

Reason: "Egg all over machine" is not a statement of fact unless the entire machine has egg all over it. This statement can be exaggerated to mean anything and is not factual.

Incorrect: Mold on ceiling of the cooler in front of fans.

Correct: Ceiling in front of north cooling unit is dirty. **Corrected**

Reason: Do you know for a fact that it is mold? Could it be dirt or mildew? Could it be refrigerant oil? If you know for a fact that it is mold, it would require immediate corrective action and you should notify your supervisor for further instruction. If you don't know for a fact what the material is, simply use a term such as "dirty".

Incorrect: Acid wash the washers tonight.

Correct: Washer #2 has scale buildup. To be corrected prior to start on 09/24/12: **Corrected**

Reason: We don't tell management how to clean. It is up to them to determine how to remove the scale buildup. We do not want to be held liable for damage caused to equipment because of our suggestion. What if there was material on the machine that is sensitive to acid, such as the rubber membrane on a check detector or electrical equipment, etc.?

Incorrect: Trash overflowing everywhere outside

Correct: Trash on the ground near the outside dumpster: **Corrected**

Reason: Upon reading "Trash overflowing everywhere outside", one might imagine something resembling a landfill. Stick to the facts.

Incorrect: Packer #14 full of egg

Correct: Egg meat on clamshells and guidebars of packer #14: **Corrected prior to start**

Reason: "Packer # 14 full of egg" could be misconstrued by some person(s) to mean there might be a gallon of liquid egg on top of packer #14. This is not a statement of fact.

Every action that is written on the PY-74 must show corrective action. There are no exceptions.

Do not use a checkmark or "ok" as a replacement for "corrected" when documenting deficiencies. Use the term "Corrected" or "Above items corrected prior to start". When using "To be corrected by 9/24/10" or similar verbiage, we must still follow up and show "Corrected".

All documentation must be legible for the plant and other graders to understand what is documented and what needs correction. Plant management should initial the front of your PY-74 on a daily basis. If they refuse to initial the form, we will still give our official contact (plant representative) at the facility a copy of the form.

SHELL EGG SURVEILLANCE LABELING

The following examples may be used as guidelines for developing labels.

**Cases Containing Only
Checked Eggs:****CHECKS**

For Processing Only in an Official
USDA Egg Products Plant

Reisma Poultry Farm
Bryant, NY 13021

**Cases Containing Only
Dirty Eggs:****DIRTY EGGS**

Ben Farms
Boppy Hill, PA 17070

**Cases Containing Either Dirty
Or Checked Eggs or a Combination
Of the Two:****RESTRICTED EGGS**

For Processing Only in an Official
USDA Egg Products Plant

Reisma Poultry Farm
Bryant, NY 13021

Check Eggs:**DIRTY AND CHECKED EGGS**

For Processing Only in an Official USDA
Egg Products Plant

Laird Farms
Boppy Hill, PA 17070

**Loss, Leakers, and Inedibles
In Shell Form:**

**RESTRICTED EGGS
NOT TO BE USED AS HUMAN FOOD**

Perigen Farms
Woodstock, VA 22050

**Loss, Leakers, Inedibles, and Incubator
Rejects in Crushed or Liquid Form:**

**INEDIBLE
EGG PRODUCT NOT TO BE USED
AS HUMAN FOOD**

Perigen Farms
Woodstock, VA 22050

**Hatchery Culls that are Washed, Unwashed
Or Show Evidence of Daylight Segregating:**

**UNCLASSIFIED EGGS
TO BE REGRADED**

Penny Farms
Huntsville, AL 68975

**Product Containing Blood or Meat
Spots, but No Other Types of Loss or
Inedible Eggs:**

**SPOTS - FOR PROCESSING
ONLY IN AN OFFICIAL EGG
PRODUCTS PLANTS**

Penny Farms
Huntsville, AL 68975

**Nest-Run Eggs Which Have Been Washed,
Daylight Segregated to Remove Obvious Defects,
But Not Sized:**

WASHED UNGRADED EGGS

Bucky Egg Company
Madison, NM 82032

Custom Packed Restricted Eggs Returned to the Producer:

Produced By:	Packed By:
Burt Dixon Farms Oak Grove, CA 95313	Stonebraker Poultry Mansfield, WV 29670
CHECKS AND DIRTIES	CHECKS AND DIRTIES