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QA Inspections Via Condition Monitoring

Guidelines for Quality Assurance Inspection of Commercial Activities Contracts for Real Property Maintenance Activities

Guide #10: Refuse and Recyclable Handling

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A Quality Assurance (QA) Program allows the Army to evaluate and document a contractor's work performance. It depends on a QA Surveillance Plan (QASP). The QASP, which is based on the contract Performance Work Statement, lists contractor activities and the surveillance approach, number of items to be inspected, and an Acceptable Quality Level (AQL) for each activity. This series of 12 guides will help the Contracting Officer's Representative/Quality Assurance Evaluator by defining and clarifying the inspection tasks required by the QASP, which will facilitate inspection uniformity and effectiveness.

This guide discusses QA monitoring of furnishing containers, refuse and recyclable collection, repainting multiple-use containers, and maintenance and repair of equipment.

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FOREWORD

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**GUIDELINES FOR QUALITY ASSURANCE INSPECTION OF COMMERCIAL ACTIVITIES
CONTRACTS FOR REAL PROPERTY MAINTENANCE ACTIVITIES
GUIDE #10: REFUSE AND RECYCLABLE HANDLING**

1 INTRODUCTION

Background

A Quality Assurance (QA) program allows the Army to evaluate and document a contractor's performance. The Quality Assurance Evaluator (QAE) conducts skilled and carefully planned inspections aimed at verifying the satisfactory completion of contractor work. The inspections evaluate the quality, quantity, and timeliness of the services provided, not the contractor's methods used in performing the work. A good QA program promotes the best possible product within the terms of the standing contract.

A well organized QA program depends on a QA Surveillance Plan (QASP), which is prepared by the Government and contains the purpose and methods of the QA program. Although the QASP is not a part of the contract, it is based on the contract Performance Work Statement, which is part of the contract. The QASP lists contractor activities and the surveillance approach, approximate number of items to be surveyed, and an Acceptable Quality Level (AQL) for each activity.

The installation Director of Public Works (DPW), the Contracting Officer (KO), or the Contracting Officer's Representative (COR) often oversees the QASP. The COR/QAE needs an inspection guide to help define and clarify the inspection tasks required by the QASP, and to facilitate inspection uniformity and effectiveness. To meet this need, the U.S. Army Construction Engineering Research Laboratories (USACERL) developed this series of 12 inspection guides.

Objective

This guide series is intended to supplement any existing QASP and to provide QA guidance for evaluating Operations and Maintenance (O&M) work as performed by contractors on Army property. This refuse and recyclable handling guide contains recommended surveillance methods that can be amended by direction of the KO or QA management to fit the needs of a specific installation.

Guide Series Organization

This series includes the following guides by USACERL published in October 1993:

- #1: Water Systems (Special Report [SR] FF-94/01)
- #2: Wastewater Systems (SR FF-94/02)
- #3: Natural Gas Distribution Systems (SR FF-94/03)
- #4: Electrical Systems (SR FF-94/04)
- #5: Heating Systems (SR FF-94/05)
- #6: Ventilation, Air Conditioning, and Refrigeration Systems (SR FF-94/06)
- #7: Building Services (SR FF-94/07)
- #8: Grounds Maintenance (SR FF-94/08)
- #9: Surfaced Areas (SR FF-94/09)

#10: Refuse and Recyclable Handling

#11: Pest Control Services (SR FF-94/11)

#12: Custodial Services (SR FF-94/12).

The QAE is expected to evaluate a contractor's performance by applying appropriate visual and instrumentation procedures along with necessary technical and interpretive skills. This guide covers QAE inspection of refuse and recyclable handling, and is divided into sections that take the inspector through a step-by-step process of recommended performance indicators, inspection tasks, and surveillance methods.

Refuse and recyclable handling is divided into four subsystems in this guide:

1. Furnishing Containers
2. Refuse and Recyclable Collection
3. Repainting Multiple-Use Containers
4. Maintenance and Repair of Equipment.

General QA information, including detailed explanations of the available surveillance methods, is given in Chapter 2.

Chapter 3 provides performance indicators, inspection tasks, and recommended surveillance approaches for each subsystem.

Appendix A contains sampling inspection tables. Appendix B contains QAE Worksheets for each subsystem and a service order questionnaire that may be reproduced for field use.

2 GENERAL QA INSPECTION INFORMATION

Inspection Organization and Planning

According to custom and standard practice, the contractor submits copies of the previous month's O&M activities and regulatory agency reports to the COR and the QAE. The due dates of these reports control the start of inspection scheduling. If possible, the QAE's inspection should be conducted within 3 days after receiving the reports. Effective coordination will allow more efficient inspection of services. The COR/QAE should look for specific indicators of the contractor's performance and should evaluate that performance based on Detailed Inspection Tasks. The following chapter lists the Performance Indicators and Detailed Inspection Tasks for refuse and recyclable handling.

Quality Assurance Surveillance Methods

The QAE can use the following five surveillance methods to determine contractor performance:

1. Random Sampling
2. Planned Sampling
3. 100 Percent Inspection
4. Unscheduled Inspection
5. Customer Complaints.

Random Sampling

The methods are based on statistical criteria provided in Military Standard (MIL-STD)-105E, *Sampling Procedures and Tables for Inspection by Attributes* (10 May 1989) and are presented as recommendations. The methods used should be based on the unique needs of an individual system. Typically, all five methods are not used to evaluate an individual system.

Random sampling is recommended for situations where many work items are candidates for inspection. For instance, because it is impractical to inspect every roof on an installation with 500 buildings, only a select number of the buildings should be inspected. Likewise, in random sampling, only a portion of the total performed work is inspected. Acceptance of the work is based on the assumption that the inspected items are representative of the quality of the contractor's work. The random sampling technique spreads the selected samples evenly throughout the evaluation period. The following are steps to be used by the QAE in random sampling.

Tables A1 and A2 in Appendix A should be used to determine the number of samples to be inspected and the number of rejects allowed as a function of the number of inspected work items for AQLs of 4 and 10 percent, and the level of surveillance. The three levels of surveillance are: normal, increased (tightened), and reduced. Initially, this guide recommends normal surveillance for random sampling. However, under the direction of the KO, the level of surveillance can be changed depending on the contractor's performance.

As an example, assume that the contractor's total scheduled output (i.e., population size) for a particular work item is 125 units and that the normal surveillance level with an AQL of 4 percent has been selected. According to Table A1, 20 of the 125 units of work should be inspected, and the entire output of 125 units should be rejected if 3 or more of the 20 sample units are not acceptable.

The QA Worksheets in Appendix B provide room to record the population size, the number of samples, the maximum number of rejects, and the interval for each Performance Indicator.

The work planned by the contractor for each maintenance task should be listed by date to make it easier to predict the time when the work samples will be ready for inspection.

Planned Sampling

Evaluation by planned sampling inspects some, but not all, of the work activities and is appropriate when the number of work items is large. Some items are evaluated before scheduled completion because they are inaccessible after the work is completed. The COR/QAE subjectively selects key work items for inspection; the sample size is determined arbitrarily.

The COR/QAE will normally use planned sampling when the contractor's performance at selected locations or tasks is poor. With this type of evaluation, the contractor knows that work performed in these areas is more likely to be monitored. Planned sampling provides a systematic way of focusing on specific output and forming conclusions about the contractor's performance level.

100 Percent Inspection

Inspection at 100 percent requires total inspection of all items in a contract requirement. It is normally used to monitor infrequent work or critical contract work when the number of work items is small and in cases where nonperformance could seriously damage Army-furnished equipment or processes. It may also be used in areas where a contractor has had prior performance difficulties.

Unscheduled Inspection

Unscheduled inspections can be used for areas of poor past contractor performance, noncritical areas, areas of infrequent repairs, or as a follow-up check of previous inspections. If the QAE notices such an area, an unscheduled inspection can be conducted to evaluate contractor performance.

Customer Complaints

The customer complaint method is based on an informed and cooperative customer population, that is generally aware of local contract requirements. Customers are expected to monitor contractor services and, when performance is poor or nonexistent, to notify the COR/QAE. If investigation reveals that the complaint is valid, the COR/QAE documents the deficiency. Since this is a reactive QA inspection approach, this method of surveillance normally supplements planned inspection methods.

Increased Surveillance

For areas of poor past contractor performance, the QAE should consult with the KO to intensify the surveillance method. More than one option is usually available, and selection should be based on the initial method and the amount of work performed.

1. Random Sampling (Normal Surveillance) can be replaced by:
 - Random Sampling (Increased Surveillance)
 - Planned Sampling (for a large population size)

- 100 Percent Inspection (for a small population size)
 - Unscheduled Inspection (for any population size).
2. Planned Sampling can be replaced by:
 - Random Sampling (Normal Surveillance)
 - 100 Percent Inspection (for a small population size)
 - Unscheduled Inspection (for any population size).
 3. Unscheduled Inspections can be replaced by:
 - 100 Percent Inspection (for a small population size)
 - Random Sampling (Normal Surveillance)
 - Planned Sampling.

Decreased Surveillance

For work areas in which the contractor maintains a consistently satisfactory performance for 3 to 6 months, the QAE should consult with the KO to decrease the intensity of the surveillance. More than one option is usually available and selection should be based on the initial method and the amount of work performed.

1. Random Sampling (Normal Surveillance) can be replaced by:
 - Random Sampling (Reduced Surveillance)
 - Planned Sampling
 - Unscheduled Inspection (for any population size)
 - Customer Complaints.
2. Planned Sampling can be replaced by:
 - Unscheduled Inspection (for any population size)
 - Customer Complaints.
3. 100 Percent Inspection can be replaced by:
 - Random Sampling (Normal Surveillance)
 - Random Sampling (Reduced Surveillance)
 - Planned Sampling
 - Unscheduled Inspection (for any population size)
 - Customer Complaints.

3 REFUSE AND RECYCLABLE HANDLING QA INSPECTIONS

Furnishing Containers

Performance Indicators and Detailed Inspection Tasks

The following numeric items are performed by the contractor. The related detailed inspection tasks are used by the QAE to verify the contractor's performance.

1. Trash and recycling containers, which conform to the contract requirements, are delivered to each family housing unit.

Before delivery, verify that all family housing refuse and recyclable containers conform to contract specifications. If they do not appear to meet specifications, instruct the contractor to hold delivery until KO approval is given. Otherwise, have the contractor distribute the containers, and check with each family housing occupant to verify delivery. If a housing unit is unoccupied, verify delivery by inspection. Document any discrepancies.

2. Trash and recycling containers, which conform to the contract requirements, are delivered to each operations building, utility plant, and service center.

Before delivery, verify that all refuse and recycling containers for operations buildings, utility plants, and service centers conform to contract specifications. If they do not appear to meet specifications, instruct the contractor to hold delivery until KO approval is given. Otherwise, have the contractor distribute the containers, and verify delivery by inspection. Document any discrepancies.

Recommended Surveillance Approach

- Evaluate both performance indicators periodically using the 100 percent inspection method.

Refuse and Recyclable Collection

Performance Indicators and Detailed Inspections Tasks

The following numeric items are performed by the contractor. The related detailed inspection tasks are used by the QAE to verify the contractor's performance. In addition to the detailed inspection tasks, send questionnaires and perform random visits to customers of the refuse contractor to obtain contractor performance feedback.

1. Trash and recyclables are collected on the scheduled days and on assigned routes between 0630 and 1530 hours.

Occasionally, observe the contractor to verify that trash and recyclables are collected on the scheduled days and on assigned routes between 0630 and 1530 hours.

2. The garbage vehicle is fully enclosed, clean, and not leaking.

Occasionally, observe the garbage vehicle to see that it is fully enclosed, clean, and not leaking.

3. The refuse and recyclable collection vehicle is covered and operates without debris falling off.

Occasionally, observe the refuse and recyclable collection vehicle to verify that it is covered and that it operates without debris falling off.

4. No refuse or recyclables are within 20 ft (6.1 m) of the collection point after collection has been completed.

Occasionally, observe the contractor to see that no refuse or recyclables are left within 20 ft of the collection point after collection has been completed.

Recommended Surveillance Approach

- Evaluate all performance indicators monthly using the unscheduled inspection method and questionnaire feedback.

Repainting Multiple-Use Containers

Performance Indicators and Detailed Inspection Tasks

The following numeric items are performed by the contractor. The related detailed inspection tasks are used by the QAE to verify the contractor's performance.

1. Multiple-use container painting is scheduled.

Obtain the contractor's schedule for painting multiple-use refuse and recyclable containers. Use planned sampling to select three containers that are scheduled for painting early in the contract period. Be present during the scheduled painting to observe the complete operation.

2. Before painting, each container is clean of foreign matter, and all rust is removed until the metal is bright.

Verify that containers are free from all foreign matter such as dirt, dust, or refuse residue, and that rusted areas are cleaned to bright metal. Make sure that containers are fully operational before painting is started.

3. Each container's interior and exterior is painted with a zinc-chromate primer, Fed. Spec. TT-P-666B.

Observe and record whether paints and thinners meet specifications. Check to see that the primer is compatible with the Fed. Spec. TT-E-529 finish coat specified for the containers' exterior. The recommended material is a zinc-chromate primer, Fed. Spec. TT-P-666B.

4. After 24 hours, an olive drab semi-gloss alkyd enamel, Fed. Spec. TT-E-529, is applied to the exterior of each container.

Check 24 hours after the primer is applied to see that an olive drab semi-gloss alkyd enamel, Fed. Spec. TT-E-529, is applied to the exterior of the containers. The paint application should completely cover the surfaces without visible skips, thin spots, runs, or sags.

5. Each container is re-stenciled with yellow paint, Fed. Std. 595, and returned to its original location (if moved).

Verify that yellow paint re-stenciling meets Fed. Std. 595 and matches the information originally on the containers. Lettering must be accurately aligned and present a crisp appearance.

QA instrumentation is recommended to check the paint/coating condition (Johnson 1993).

If containers were moved to another location for cleaning and painting, make sure that they are returned to their original locations.

Recommended Surveillance Approach

- Evaluate all performance indicators periodically using planned sampling.

Maintenance and Repair of Equipment

Performance Indicator and Detailed Inspection Task

The following item is performed by the contractor. The related detailed inspection tasks are used by the QAE to verify the contractor's performance.

- Maintain and repair refuse and recyclable handling equipment.

Maintenance and repair of Government Furnished Equipment (GFE) damaged by the contractor should be incidental to the furnishing of refuse and recyclable collection services. Verify that the contractor also repairs GFE damaged by others or that becomes unusable through normal wear.

Use the contractor's report of completed repairs to schedule containers for random inspection. Document any discrepancies.

An inspection of a repair should verify that:

- a. The unit operates as intended.
- b. The repair is done with parts intended for the unit and similar to others already in use.
- c. Welds are neat and continuous. QA instrumentation is recommended to check welds (Johnson 1993).
- d. The repaired area is cleaned, primed, and finish-painted to match. QA instrumentation is recommended to check for corrosion/paint condition (Johnson 1993).

Check to see that the area is clear of debris from the repair work.

Recommended Surveillance Approach

- Evaluate the performance indicator monthly using random sampling (normal surveillance, 10 percent AQL).

ACRONYMS

AQL	Acceptable Quality Level
COR	Contracting Officer's Representative
DEH	Director of Engineering and Housing
GFE	government furnished equipment
KO	Contracting Officer
MIL-STD	Military Standard
O&M	Operations and Maintenance
QA	Quality Assurance
QAE	Quality Assurance Evaluator
QASP	QA Surveillance Plan

REFERENCES

- Johnson, James, Special Report FF-93/DRAFT, *Catalog of Industrial Instrumentation for Army Real Property Quality Assurance Applications* (U.S. Army Construction Engineering Research Laboratory, 1993).
- Military Standard 105E, *Sampling Procedures and Tables for Inspection by Attributes* (Department of Defense, 10 May 1989).

APPENDIX A: Inspection Sampling Tables

Table A1

Sample Sizes and Reject Levels (4% AQL)
(As developed from Tables I & II in MIL STD 105E)

Population Size	Normal Surveillance			Increased (Tightened) Surveillance			Reduced Surveillance		
	Class II Sample Size	Reject Level	Reject Level	Class III Sample Size	Reject Level	Reject Level	Class I Sample Size	Reject Level	Reject Level
08 to 50	*	25%	1	*	40%	1	*	-	-
51 to 90	E	13	2	F	20	2	*	3%	1
91 to 150	F	20	3	G	32	3	*	3%	1
151 to 280	G	32	4	H	50	4	E	5	2
281 to 500	H	50	6	J	80	6	F	8	3
501 to 1200	J	80	8	K	125	9	G	13	4
1201 to 3200	K	125	11	L	200	13	H	20	5

The Reject Level is the number of failed inspections requiring rejection of the Lot (population).
An asterisk (*) indicates that the sample level is outside the range of a 4% AQL for the selected class.

Table A2

Sample Sizes and Reject Levels (10% AQL)
(As developed from Tables I & II in MIL STD 105E)

Population Size	Normal Surveillance			Increased (Tightened) Surveillance			Reduced Surveillance		
	Class II Sample Size	Reject Level	Reject Level	Class III Sample Size	Reject Level	Reject Level	Class I Sample Size	Reject Level	Reject Level
06 to 15	*	33%	1	*	50%	1	*	-	-
16 to 25	C	5	2	D	8	2	*	8%	1
26 to 50	D	8	3	E	13	3	C	2	2
51 to 90	E	13	4	F	20	4	C	2	2
91 to 150	F	20	6	G	32	6	D	3	3
151 to 280	G	32	8	H	50	9	E	5	4
281 to 500	H	50	11	J	80	13	F	8	5
501 to 1200	J	80	15	K	125	19	G	13	6
1201 to 3200	K	125	22	L	200	19	H	20	8

The Reject Level is the number of failed inspections that require rejection of the Lot (population).
An asterisk (*) indicates that the sample level is outside the range of a 10% AQL for the selected class.

Table A3

Random Numbers

2	6	1	6	9	3	5	5	1	1	3	1	2	5	5	1	7	8	7	5	6	6	8	4	4	9	4	6	2	8	9	3	5	
1	8	1	4	5	9	2	7	2	2	5	4	9	1	9	2	9	4	9	2	9	3	6	3	6	3	5	1	4	3	1	1	6	1
4	2	3	6	8	4	6	3	2	6	6	8	8	5	4	9	1	1	3	2	8	6	1	9	8	7	1	2	4	3	4	1	3	
2	7	2	4	8	8	8	3	5	3	3	2	6	3	9	3	2	7	7	1	8	3	5	9	6	8	1	5	9	3	2	4	6	
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2	2	7	4	6	8	2	2	5	9	4	4	2	3	7	9	5	7	7	8	8	1	3	1	4	3	1	1	6	1	2	5	8	
8	5	7	3	9	8	7	9	2	2	1	9	7	9	8	6	1	1	9	8	5	3	6	4	3	3	9	6	3	8	1	5	1	
7	9	4	2	3	8	6	1	7	6	7	5	3	4	3	5	2	1	4	7	6	9	1	8	9	2	4	4	3	7	4	8	1	
1	3	7	8	6	8	7	8	9	9	3	3	1	6	3	3	8	4	3	3	4	8	1	8	6	3	4	9	9	8	4	5	4	
5	4	7	4	9	3	7	3	1	9	2	3	8	7	3	8	9	2	5	1	5	9	4	2	4	9	1	9	9	8	1	7	9	
7	6	7	6	2	7	3	2	5	7	9	3	4	4	4	2	6	1	5	2	4	5	1	7	9	9	2	8	6	6	8	8	5	
8	4	6	5	9	2	1	3	5	5	1	7	8	6	1	7	9	8	3	6	6	9	1	7	9	2	2	9	6	7	1	5	3	
2	3	6	2	7	9	5	6	2	9	7	2	4	2	7	4	7	7	5	4	6	9	7	5	1	9	9	1	2	9	6	7	5	
6	2	2	4	5	8	2	9	4	9	5	6	2	6	3	6	2	6	6	2	1	3	9	6	8	4	6	1	4	2	5	7	4	
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2	4	7	6	7	9	3	2	2	2	2	8	1	3	4	2	9	8	7	6	9	5	7	8	6	5	8	5	3	6	8	6	2	
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4	8	4	1	9	8	6	4	7	4	4	1	5	9	2	4	3	3	6	7	4	8	9	2	1	5	4	3	7	2	5	1	2	
2	1	6	8	6	8	3	6	1	4	5	7	9	6	8	7	2	3	8	6	2	9	9	1	3	4	7	5	4	4	3	9	8	
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2	3	4	9	7	5	3	2	4	6	4	4	6	8	6	3	1	1	8	9	6	4	7	7	6	3	1	5	7	8	9	7	7	
6	7	9	5	5	8	5	4	4	5	6	1	4	9	4	5	3	1	7	3	2	1	8	6	2	2	4	7	8	1	4	5	9	
5	3	7	8	6	6	4	1	1	4	4	2	5	1	1	4	8	9	4	2	8	9	9	7	2	4	7	8	4	1	8	1	1	
7	2	3	2	1	7	2	8	6	4	6	9	7	3	9	3	3	4	4	7	1	4	4	8	8	6	7	4	1	9	9	5	1	
8	4	3	4	9	2	7	2	6	3	7	9	8	3	1	9	9	5	8	7	1	2	9	9	6	6	8	8	8	7	8	4	8	

Performance Indicator #1: Trash and recyclables are collected on the scheduled days and on assigned routes between 0630 and 1530 hours.

LOCATION

_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N

Remarks:

Performance Indicator #2: The garbage vehicle is fully enclosed, clean, and not leaking.

LOCATION

_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N

Remarks:

Performance Indicator #3: The refuse and recyclable collection vehicle is covered and operates without debris falling off.

LOCATION

_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N

Remarks:

Performance Indicator #4: No refuse or recyclables are within 20 ft of the collection point after collection has been completed.

LOCATION

_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N

Remarks:

Quality Assurance Evaluator

Date

Performance Indicator #1: Multiple-use container painting is scheduled.

Remarks:

Performance Indicator #2: Before painting, each container is clean of foreign matter, and all rust is removed until the metal is bright.

<u>Container</u>			
1	S	U	N
2	S	U	N
3	S	U	N

Remarks:

Performance Indicator #3: Each container's interior and exterior is painted with a zinc-chromate primer, Fed. Spec. TT-P-666B.

<u>Container</u>			
1	S	U	N
2	S	U	N
3	S	U	N

Remarks:

Performance Indicator #4: After 24 hours, an olive drab semi-gloss alkyd enamel, Fed. Spec. TT-E-529, is applied to the exterior of each container.

<u>Container</u>			
1	S	U	N
2	S	U	N
3	S	U	N

Remarks:

Performance Indicator #5: Each container is re-stenciled with yellow paint, Fed. Spec. 595, and returned to its original location (if moved).

<u>Container</u>			
1	S	U	N
2	S	U	N
3	S	U	N

Remarks:

Quality Assurance Evaluator

Date

Performance Indicator: Maintain and repair refuse and recyclable handling equipment.

- a. The unit operates as intended.
- b. The repair is done with parts intended for the unit and similar to others already in use.
- c. Welds are neat and continuous.
- d. The repaired area is cleaned, primed, and finish-painted to match.

Using the population size _____, and referring to normal surveillance in Tables A1 and A2 gives _____ number of samples and _____ number of allowable rejects.

LOCATION

_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N
_____	S	U	N

Remarks:

Quality Assurance Evaluator

Date

Refuse/Recyclable Collection Questionnaire

Building Number _____
Date _____
Occupant _____
Interviewer _____

This questionnaire should be completed by the person most knowledgeable about the quality of the refuse and recyclable collection service provided. Please circle the number for the answer selected or write in an appropriate answer where there are blanks.

If this questionnaire is completed by telephone, the QAE should sign it where provided.

1. How many times per week are refuse and recyclables collected from your location?
Once.....1
Twice.....2
More than twice.....3
Unknown.....4

2. How satisfied are you with the refuse and recyclable collection service being provided?
Very satisfied.....1
Satisfied.....2
Dissatisfied.....3
Very dissatisfied.....4

3. Are refuse and recyclables collected at about the same time each collection day?
Yes.....1
No.....2

4. Does the collection crew leave the area clear of refuse and recyclables?
Yes, all of the time.....1
Yes, most of the time.....2
No.....3

5. Has the collection crew damaged the refuse or recyclable containers?
No.....1
Not usually.....2
Yes.....3

6. Are the empty containers placed in an orderly fashion with all lids in place?

- Yes.....1
- Usually.....2
- Almost never.....3
- No.....4

7. Has the collection crew ever refused to remove refuse or recyclables properly placed for removal?

- No.....1
- Yes.....2

8. Have you ever complained about the quality of refuse and recyclable collection services being provided?

- No (go to #12).....1
- Yes (go to #9).....2

9. When calling about the quality of service, do you normally find the person you talk to knowledgeable?

- Yes.....1
- No.....2

10. When calling about the quality of service, do you normally find the person you talk to courteous?

- Yes.....1
- No.....2

11. When calling about the quality of service, do you normally find the person you talk to helpful?

- Yes.....1
- No.....2

12. Have you ever talked to members of the collection crew?

- No (go to #15).....1
- Yes (go to #13).....2

13. Are the collection crew members courteous?

- Yes.....1
- No.....2

14. Are the collection crew members helpful?

Yes.....1

No.....2

15. Who provided the information for this questionnaire?

Sponsor.....1

Dependent.....2

Both.....3

16. Please make any comments on the refuse and recyclable collection service in the space below:

Thank you for your cooperation.

Quality Assurance Evaluator

Date Questionnaire Completed

Tabulation Form for Refuse/Recyclable Collection Questionnaire

INSTRUCTIONS: Average the scores for each question unless marked as not applicable (NA). Enter the averages in the blanks below, and follow the individual instructions for evaluation.

<u>Question No.</u>	<u>Ave. Score</u>	<u>Question No.</u>	<u>Ave. Score</u>
1	<u>(NA)</u>	9	<u> </u>
2	<u> </u>	10	<u> </u>
3	<u> </u>	11	<u> </u>
4	<u> </u>	12	<u>(NA)</u>
5	<u> </u>	13	<u> </u>
6	<u> </u>	14	<u> </u>
7	<u> </u>	15	<u> </u>
8	<u>(NA)</u>	16	<u>(NA)</u>

FREQUENCY: Separate locations requiring special service and verify that their requirements are being met. Do the reported frequencies from the rest of the locations match the contract requirements? Y N

QUALITY OF SERVICE: Total the average scores for questions 2 through 7 and divide the total by 6. The result is _____. (A result of 1.0 through 1.5 is excellent; 1.6 through 2.5 is poor, and the contractor should be notified; 2.6 or greater is unsatisfactory, and the KO should be notified.)
 E P U

COMPLAINTS: Validate complaints by contacting the customer. After determining the nature of the complaint, verify that the issue has been resolved. If the complaint is valid, not isolated, and is unresolved, include the affected route in a future unscheduled inspection.

COMPLAINT RESPONSE: Total the average scores for questions 9 through 11 and divide the total by 6. The result is _____. (A result of 1.0 through 1.5 is satisfactory. A result of 1.6 through 2.0 is unsatisfactory, and the KO should be notified.) S U

COURTESY: Total the average scores for questions 13 and 14 and divide the total by 2. The result is _____. (A result of 1.0 through 1.5 is satisfactory; over 1.6 is unsatisfactory and the KO should be notified.)

REMARKS: (Write on reverse if necessary.)

 Quality Assurance Evaluator

Date _____

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