

Appendix 7 – Sampling Techniques

SAMPLING TECHNIQUES

The process of collecting objective evidence involves examining a selection of documents and records, interviewing a selection of personnel and observing a selection of key functions of the RJC member's business practices.

In all cases, when collecting evidence, it is essential to consider how one selects what to review – that is, the sampling methods and sample sizes. The size of the sample, particularly in relation to the total population, will naturally influence confidence in the assessment results. Sampling should be carried out to access just enough evidence to verify that systems and processes are in place and are effective.

In principle, enough information has been gathered if:

- the performance and management systems are well understood; and
- personnel performing key functions and tasks as they relate to the audit have been interviewed; and
- there is sufficient evidence to identify the probable root cause of any non-conformity.

To help ensure an appropriate sample, auditors are encouraged to follow six steps:

1. Determine and review the objective of the audit criteria at hand. What is it you are looking at? Is it overall compliance regarding a routine activity, in which case you may have to look at lots of records (e.g. monitoring results or invoices), or is it a simple requirement to have something in place such as a policy or the need for a risk assessment?
2. Identify the overall size (total population) of available information. How many records, employees, etc., in total are available for review? And which are relevant to the part you are auditing?
3. Select a sampling method. Will you use a judgemental or statistical approach?
4. Determine an appropriate sample size. How many items do you need to review given the total population, objective and other practical considerations such as time?
5. Complete the sampling.
6. Document the results. Have you recorded what you saw, as well as the methodology, rationale and sample quantity relative to the population?

SAMPLING METHODS

Auditors typically use one of two broad types of sampling: judgemental and probabilistic methods.

Judgemental sampling can be used when the auditor suspects that a problem exists and wants to obtain objective evidence to confirm or refute this suspicion. It involves leaning the sample towards a particular subset of the overall population. For example, if auditors discover that a new business partner has recently been commissioned, they may decide to focus their sampling activities on this new partner to establish whether the RJC member has conducted appropriate due diligence and risk assessment.

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Probabilistic sampling is more commonly used to verify general conformity and to ensure that the sample represents the entire population under review. There are four types of probabilistic sampling:

- Random sampling is the most widely used method and gives all parts of the population an equal chance of being selected. In random sampling, at least 25% of the sample should be selected at random. It is important that the sample be selected by the auditor, not the auditee.
- Block sampling aims to draw conclusions about a population by examining randomly selected segments or clusters of it. It is good for cases when the population is so large that a purely random sample would be too time-consuming. For example, if a company is monitoring air emissions twice a day, five days a week, then rather than choose a random sample from the past 12 months of data (around 480 test results), the auditor may choose to review all records generated on Wednesdays for January, April, July and October.
- Stratification sampling is useful if the size or characteristics of the population vary widely. Similar to block sampling, it breaks up the population into groups or subsets to focus sampling (such as day shift/night shift, full-time employees/casual employees, high volume/low volume, etc.). For example, an auditor may discover that information about labour rates and deductions tends to be managed less formally during busy periods of production and so choose to focus sampling on these busy periods.
- Interval sampling selects samples at specific intervals, for example every n th item of the population. To ensure every item has an equal chance of being chosen, the first item must be picked at random. The sampling interval is normally determined by dividing the total population by the desired sample size. For example, if an auditor wants to verify whether the weekly workplace inspections have been carried out over the past 12 months, they could decide to review 10-weekly inspection reports from the past year, which would set the sampling interval at five, and randomly pick week three to begin.

Sample sizes are similarly determined either statistically or on the basis of the auditor's professional judgement. Judgmental methods are more commonly used in management system auditing (unlike in financial auditing, where statistical methods are usually more relevant).



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SAMPLING INTERVIEWEES

The number and type of employee interviews are established by the lead auditor and must include a representative sample of employees and departments in the RJC member's facility, including indirectly employed workers and on-site contractors. The sample shall typically be selected on a judgemental basis to ensure that vulnerable employees and those undertaking high-risk or hazardous tasks are prioritised for interview.

Table A7.1 identifies the recommended sample sizes for auditors to use when deciding how many group and individual interviews to conduct at each site. Auditors shall use their discretion and consider factors such as industry, location and the compliance history when defining the number of employees to interview and group sizes. If, however, the auditors' choice departs from the figures set out in Table A7.1, they must detail the reasons for this in their audit report to the RJC.

TABLE A7.1. RECOMMENDED SAMPLE SIZES AND DURATIONS FOR GROUP AND INDIVIDUAL INTERVIEWS TO BE HELD AT EACH ONE OF THE RJC MEMBER'S ENTITIES/FACILITIES (FOR INITIAL AND RECERTIFICATION AUDITS ONLY)

NUMBER OF EMPLOYEES	NUMBER OF INDIVIDUAL INTERVIEWS	GROUP INTERVIEWS	TOTAL EMPLOYEES TO BE INTERVIEWED	EFFECTIVE TIME SPENT ON INTERVIEWS (HOURS)
1–10	*	*	*	*
11–25	2	1 group of 3	5	1
26–100	6	1 group of 4	10	2.5
101–500	8	3 groups of 4	26	5
501–1,000	12	6 groups of 4	42	8.5
1,001–2,000	20	8 groups of 4	52	12.5
2,000+	20	8 groups of 5	60	14

* As determined to be appropriate by the lead auditor.

If the RJC member's facility has more than 2,000 employees, the lead auditor shall decide the number of individual and group interviews to be held, in agreement with the RJC member. Note that the minimum number of employees to be interviewed in this case is 60.

The records of employees who participate in the interviews shall be included in the sample of employee records that are checked by the auditor. Any additional records can be sampled from the remaining employees, including indirectly employed workers and on-site contractors.

For surveillance, it is up to the lead auditor to decide the number and type of employees to be interviewed, considering factors such as the types of nonconformity to be reviewed, overall compliance history, and complaints raised by employees or reported to the RJC. In cases where new entities/facilities need to be visited, the lead auditor shall apply the sampling guidance in Table A7.1.

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SPECIFIC SAMPLING REQUIREMENTS FOR COP PROVISION 7 (DUE DILIGENCE FOR RESPONSIBLE SOURCING, INCLUDING FROM CONFLICT-AFFECTED AND HIGH-RISK AREAS)

When sampling material transactions for COP provision 7 (on due diligence), auditors shall establish from the applicable period of records and documentary evidence which transactions have originated from low- and high-risk areas as per the RJC member's implementation of Step 2 of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

For low-risk transactions of gold, silver, PGM, diamonds and coloured gemstones, auditors can choose a representative selection of material transactions to sample. But for high-risk transactions, auditors shall review 100% of transactions received within the audit period.

In cases where sampling is allowed (i.e. for low-risk transactions), auditors shall review the type, size and complexity of the RJC member's operations to determine whether they can use the simple or complex sampling plan in Table A7.2. In making their decision, auditors shall consider all the following:

- The total number of transactions received during the audit period.
- The proportion of gold, silver, PGM, diamonds and coloured gemstones.
- The number of active suppliers during the audit period, and the volume of material supplied.
- The number of different low-risk countries of origin.
- Any anomalies observed in the review of transactions.
- Any other criteria they deem important, such as relevant global events (increased sampling may be necessary).

Regardless of the type of sampling used for low-risk transactions, it is up to the auditor to determine the final sample size. Table A7.2 offers some broad guidelines for sample size, but their use is not mandatory. The sample size may be increased if the auditor detects inconsistencies or discrepancies in the documentation provided for review or if there is evidence pointing to the falsification or manipulation of documents. If during the audit the auditor feels the need to increase the sample size, the auditor shall provide the reason for this (as well as the applied sampling approach) in the audit report.

TABLE A7.2. RECOMMENDED SAMPLE SIZES FOR SIMPLE AND COMPLEX SAMPLING PLANS, PER NUMBER OF TRANSACTIONS

NUMBER OF LOW-RISK TRANSACTIONS	SIMPLE SAMPLING PLAN	COMPLEX SAMPLING PLAN
1–100	10	10
101–250	11–15	11–20
251–500	16–20	21–30
501–1,000	21–25	31–45
1,001–5,000	25–30	46–100
Over 5,001	31–50	101–250

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CONDUCTING SAMPLING

To reduce any chance of bias, it is important that the auditor, not the auditee, selects the sample.

Care must also be taken to ensure that the right population is being sampled. For example, if the auditor wants to verify that contractors have received induction training, they should sample the list of all contractors, rather than sampling training records, which by definition would only include those contractors who have been trained.

DOCUMENTING RESULTS

Where sampling has been used in an audit, auditors shall record information about the methods used in the RJC audit report template. In particular, they shall record the:

- objective of the process being audited.
- population under review.
- type of sampling method employed and reasons why.
- sample size selected and reasons why.
- results of the sample.

In all cases, the lead auditor shall report on the member's practices and outcomes following the specific guidance issued by the RJC for this provision.

SPECIAL CONSIDERATION FOR COC AUDIT: RECOMMENDED SAMPLING PLAN FOR MEDIUM-RISK OUTSOURCED CONTRACTORS

In COC audits, all high-risk outsourced contractors must be visited at each certification and surveillance audit. For an extension to scope, any new high-risk outsourced contractors must be visited as part of the audit.

Consideration should also be given to whether the extension includes an addition of materials or an increased risk in the activities that would require existing high- or medium-risk contractors to be revisited.

For medium-risk outsourced contractors, a sample is to be selected but the sample size is not defined, which could lead to divergent approaches between different members and certification bodies.

In order to provide greater consistency, it is recommended that the member and the auditor base their approach on the square root of the number of medium-risk contractors, weighted as follows:

- Square root * 0.8 rounded to the nearest whole number for the initial audits and recertifications.
- Square root * 0.6 rounded to the nearest whole number for surveillance visits.

In selecting the contractors to visit, members and auditors should try to rotate and visit different contractors across subsequent audits to ensure that contractors are in compliance with the COC requirements.

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Guidance on the samples to take for different numbers of medium-risk outsourced contractors is given below.

TABLE A7.3 RECOMMENDED SAMPLE SIZES FOR SIMPLE AND COMPLEX SAMPLING PLANS, PER NUMBER OF CONTRACTORS

NUMBER OF MEDIUM-RISK CONTRACTORS	INITIAL AND RECERTIFICATION AUDITS	SURVEILLANCE AUDITS
1-4	1	1
5-8	2	2
9-19	3	2
20-35	4	3
36-49	5	4
50-65	6	5
66-79	7	5
80-100	8	6
>100	Square root * 0.8 to nearest whole number	Square root * 0.6 to nearest whole number

