

CSA Group Standard and Guideline

CSA Z1005:21, *Workplace incident investigation*

CSA Z1005.1:21, *Implementation Guideline for CSA Z1005, Workplace incident investigation*

<https://www.csagroup.org/store/>

Evaluation Questions

Decision	Item	If Yes, then...	If No, then...	Resource
1	<p>Address bias</p> <p><i>Question 1 – Does your organization’s investigation program address bias?</i></p> <p><i>Question 2 – Does the investigation program have a definition for investigation bias?</i></p> <p><i>Question 3 – How is bias dealt with in the incident investigation program.</i></p>	Go to Decision 2	<p>Action 1 – Research the impact of bias on investigation.</p> <p>Action 2 – Develop a definition of bias for your organization.</p> <p>Action 3 – Determine how the definition will be reviewed in your organization’s investigation program.</p>	<p>Example definition:</p> <p>Bias – The inclination or tendency to present or hold a partial perspective that is preconceived or unreasoned. Bias can lead to the unfair treatment of people who are involved in or are the subject of an audit or investigation. Bias can also lead to inaccurate interpretations of information and records. The result is a deterioration of the impartiality that is at the core of all audits and investigative functions.</p> <p>Source – Zack, Gerry</p>

Decision	Item	If Yes, then...	If No, then...	Resource
2	<p>Definition of bias</p> <p>Review your organization's definition of bias as it may influence the thoughts or decisions made by the investigators or those reviewing the findings and recommendations. Consider whether the definition includes and references the following.</p> <p><i>Question 4 – Does the definition of bias address the inclination or tendency to present or hold a partial perspective that is preconceived or unreasoned?</i></p> <p><i>Question 5 – Does the investigation program identify that bias can lead to the unfair treatment of people who are involved in or are the subject of an investigation?</i></p> <p><i>Question 6 – Does the investigation program address how bias can lead to inaccurate interpretations of information and data?</i></p> <p><i>Question 7 – Does the investigation program identify there could be a deterioration of the impartiality that is at the core of the investigative program?</i></p>	Go to Decision 3	<p>Action 4 – Establish for the investigation program how the investigator(s) will identify bias that may (or will) influence the thoughts or decisions made by the investigators or workplace parties reviewing the findings and recommendations.</p> <p>Action 5 – Establish for the investigation program how the investigator(s) will identify bias to address the inclination or tendency to present or hold a partial perspective that is preconceived or unreasoned.</p> <p>Action 6 – Establish for the investigation program how the investigator(s) will identify and address how bias can lead to the unfair treatment of people who are involved in or are the subject of an investigation.</p> <p>Action 7 – Establish for the investigation program how the investigator and investigation program will address how bias can lead to inaccurate findings.</p>	—

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3	<p>Pre-investigation</p> <p>Consider whether the investigation program addresses the pre-investigation requirements and addresses how the investigation team will initiate the investigation.</p> <p><i>Question 8 – Are the investigation team members and their roles and responsibilities in accordance with the scope of the investigation?</i></p> <p><i>Question 9 – Do any investigation team members have a conflict of interest or bias that could interfere with the investigation?</i></p>	Go to Decision 4	<p>Refer to CSA Z1005</p> <p>Action 8 – See Clause 6.2.2 and 6.2.2.1</p> <p>Action 9 – Review Clause 6.2.1 to ensure that bias and conflict of interest is addressed and aligned with the corporate ethics and code of conduct standards and include in the investigation program.</p>	<p>Clauses 6.2.1, 6.2.2, and 6.2.2.1</p> <p>Refer to professional safety associations' codes of conduct and ethics.</p> <p>Examples:</p> <p>Canadian Society of Safety Engineers (CSSE)</p> <p>Board of Canadian Registered Safety Professionals (BCRSP)</p>
4	<p>Review information provided on bias</p> <p>Review whether the investigation team, health and safety committee members, and business leaders have received training or education and have sound knowledge about the impact of bias on incident investigations.</p> <p>Areas to consider:</p> <ul style="list-style-type: none"> ▪ Bias can affect the thought and decision-making process at all levels of experience, skills, and knowledge within a workplace. ▪ Bias is a natural human factor; however, understanding and identifying bias is critical for investigation success. ▪ Bias in investigations may be the result of previous experience(s); the type of event; or previous experience or knowledge of equipment, processes, allegiances, or personal motivations. 	—	—	—

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4 continued	<p data-bbox="321 264 873 326"><i>Question 10 – Could the investigator/team bias feel that</i></p> <ul data-bbox="342 342 863 626" style="list-style-type: none"> <li data-bbox="342 342 863 443">▪ <i>suboptimal actions (fault of individuals) are more possible than suboptimal conditions (hazards and risks)?</i> <li data-bbox="342 459 863 626">▪ <i>reaching an investigation judgement or decision will bring a benefit to others (e.g., supervisor, colleague, friend, organization) that the investigator(s) are protecting?</i> 	Go to Decision 5	Action 10 – Refer to CSA Z1005.1 for guidance to build the investigation team and workplace parties' knowledge and skills required to address bias in incident investigations.	Guidance on Clause 6.2.2.1 Bias
5	<p data-bbox="321 643 611 667">Common types of bias</p> <p data-bbox="321 683 821 781"><i>Question 11 – Does your incident investigation program identify the types of bias common to investigations?</i></p>	Go to Decision 6	<p data-bbox="1131 643 1528 740">Action 11 – Refer to CSA Z1005.1 Annex C to address bias factors by:</p> <ul data-bbox="1152 756 1528 1357" style="list-style-type: none"> <li data-bbox="1152 756 1528 992">▪ Taking an inventory and reviewing the program to determine whether the investigation team is balanced and diverse in training and work experience. <li data-bbox="1152 1008 1528 1138">▪ Determining if there is a process to self-check and provide critical decision reviews. <li data-bbox="1152 1154 1528 1357">▪ Determining if the review of decisions by other individuals with identifiers removed supports the same decisions and conclusions. 	Guidance on Clause 6.2.2.1 Bias [paragraph: Annex C of this Guideline outlines the types of bias most common to investigation teams]

Decision	Item	If Yes, then...	If No, then...	Resource
6	<p>Investigator competencies</p> <p><i>Question 12 – Do investigators responsible for identifying and addressing bias in the investigation program have the requisite skills, knowledge, and experience required for the investigation program?</i></p>	Go to Decision 7	Action 12 – Refer to CSA Z1005	Clauses 6.2.2.2, 4.2.1, 6.2.2.1 and the definition of competence in Clause 3.1.
7	<p>Investigator bias</p> <p><i>Question 13 – During the incident investigation process, are the investigators and reviewers required to evaluate and ensure that investigator bias or other cognitive obstacles have not negatively or otherwise impacted the data analysis in the Analysis and Findings phase of the investigation program?</i></p>	Go to Decision 8	Action 13 – Refer to CSA Z1005 and CSA Z1005.1	CSA Z1005 – Clauses 6.3.7, 6.3.10, and 8 CSA Z1005.1 – Guidance on Clause 6.3.7 Data validation
8	<p>Ability to limit bias in an investigation</p> <p><i>Question 14 – Does the investigation program address witness interview techniques that help limit bias and potential false information that may occur with leading questions rather than open-ended questions?</i></p>	Go to Decision 9	Action 14 – Refer to CSA Z1005.1 Annex B for investigation interviewing strategies, tips, and questions	Annex B.3 Interviewing tips
9	<p>Identifying bias in an investigation program</p> <p>There are approximately 188 identified types of bias.</p>	—	—	—

Decision	Item	If Yes, then...	If No, then...	Resource
9 continued	<i>Question 15 – Does your investigation program identify the potential types of bias present in incident investigations?</i>	Review the elements of your Investigation Plan	Action 15 – Refer to CSA Z1005.1 Annex C for the six types of bias that may arise during an investigation. Identify the bias types and definitions; how they may impact an incident investigation; and how their mitigation may be included in the investigation program and investigator toolkit.	Annex C Types of investigation team bias

Resource References

Canadian Society of Safety Engineers (CSSE)

<https://www.csse.org/>

Board of Canadian Registered Safety Professionals (BCRSP)

<https://bcrsp.ca/en>

MacLean, C. and Dror, I.E. (2016). “Psychology and Cognitive Bias”. In A. Kesselheim & C. Robertson (Eds.), *Blinding as a Solution to Bias* (Chapter 1, pp 13-24). Elsevier.

<https://nebula.wsimg.com/2d9304f85ab9c993ef5c510d59d79e44?AccessKeyId=09634646A61C4487DFA0&disposition=0&alloworigin=1>

Zack, Gerry. *Implicit Bias and the Investigation* (presentation). January 14, 2020.

https://assets.corporatecompliance.org/Portals/1/PDF/Resources/past_handouts/Internal_Investigation/2020/January/S15%20Overcoming%20Bias%20in%20Investigations.pdf

Clause...	In CSA Z1005...	In CSA Z1005.1...
3 Definitions and abbreviations	Clause 3.1 for definition of competence	—
4 Incident investigation and prevention program (IIPP)	Clause 4.2.1 Responsibility, authority, and accountability	Guidance on Clause 4.2.1
6 Conducting investigations	Clause 6.2.1 Pre-investigation Clause 6.2.2 Investigation initiation Clause 6.2.2.1 General Clause 6.2.2.2 Investigator team competence Clause 6.3.7 Analysis Clause 6.3.10 Findings	Guidance on Clause 6.2.1 Guidance on Clause 6.2.2.1 Bias – page 34 Guidance on Clause 6.2.2.2 – page 37 Guidance on Clause 6.3.7 Data validation – page 47 Guidance on Clause 6.3.10
8 Verification and validation	Clause 8	Guidance on Clause 8
Annex B Interviewing strategies	—	B.3 Interviewing tips
Annex C Types of investigation team bias	—	Potential types of investigation team bias: <ul style="list-style-type: none"> ▪ Confirmation bias ▪ Allegiance or affiliation bias ▪ Hindsight bias ▪ Correspondence bias ▪ Anchoring or focalism bias ▪ Observer bias

Other Resources

Check Your Bias: 8 Cognitive Investigation Biases. Media Sonar. (July 24, 2019). Retrieved from <https://mediasonar.com/2019/07/24/cognitive-biases-investigations/>

Desjardins, Jeff. (August 26, 2021). *Every Single Cognitive Bias in One Infographic*. Visual Capitalist. <https://www.visualcapitalist.com/every-single-cognitive-bias/>

Dror, Itiel E.* *Cognitive and Human Factors in Expert Decision Making: Six Fallacies and the Eight Sources of Bias*. Analytical Chemistry 2020 92 (12), 7998-8004. DOI: 10.1021/acs.analchem.0c00704. <https://pubs.acs.org/doi/pdf/10.1021/acs.analchem.0c00704>