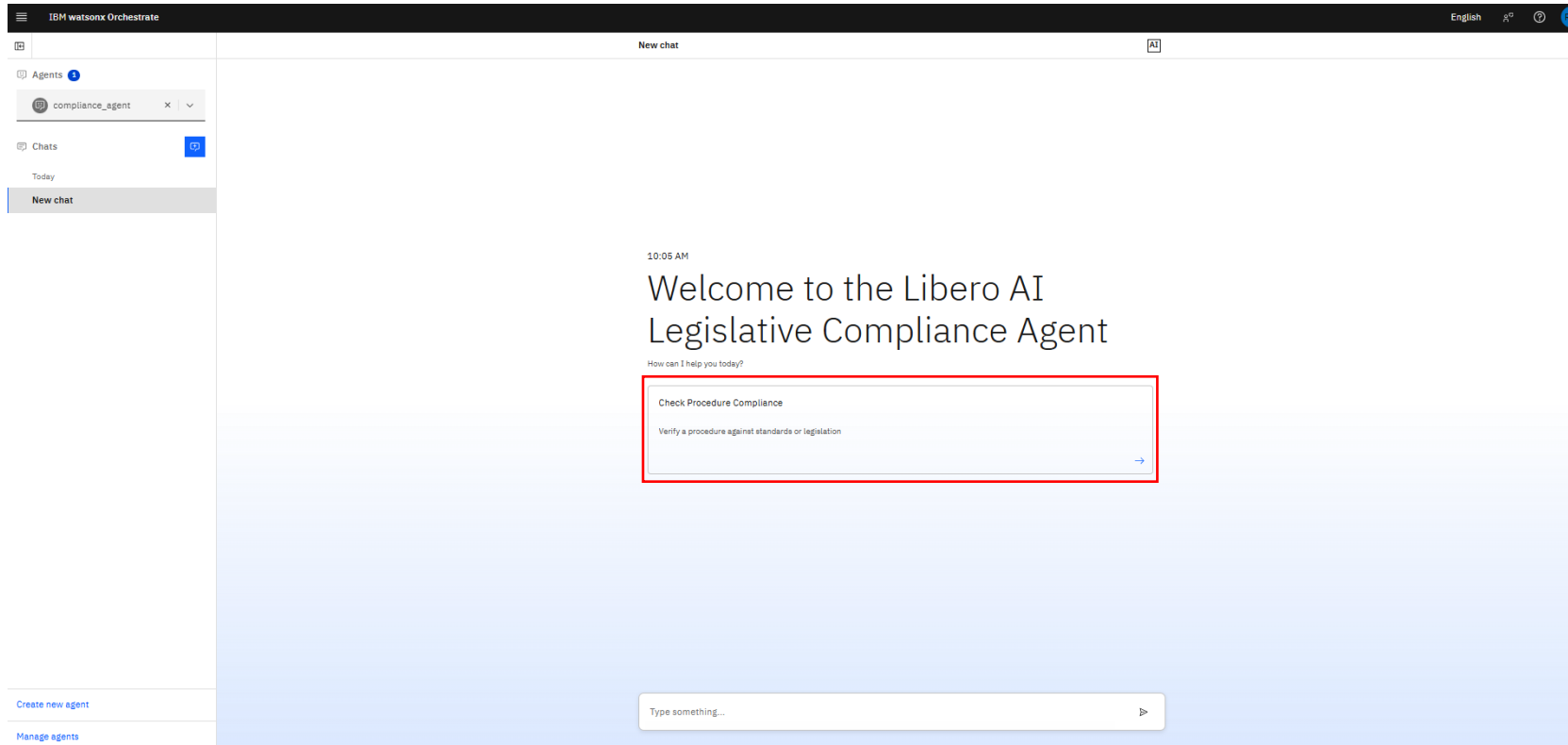


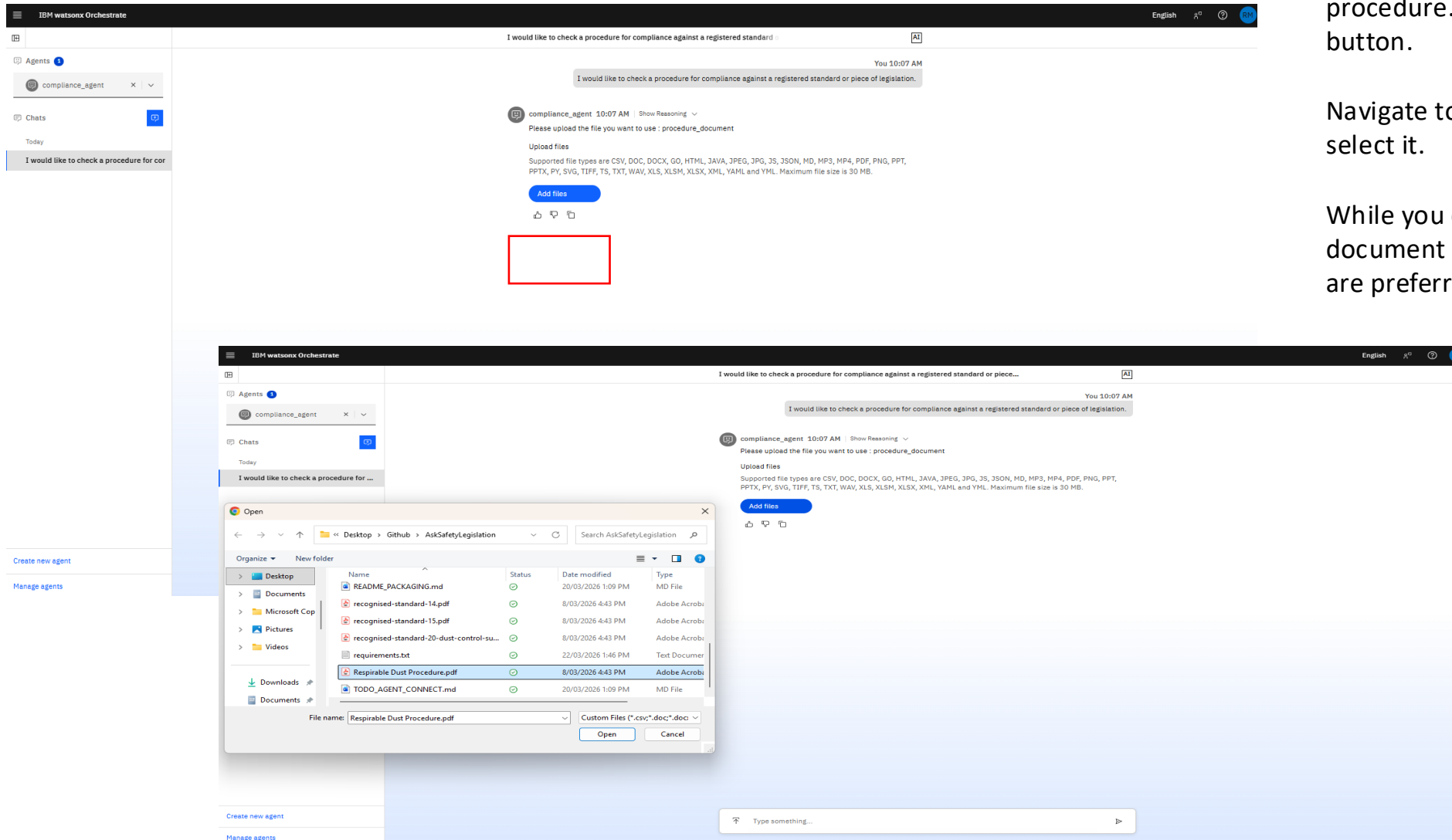
Legislative Compliance Agent



The Libero AI Legislative Compliance Agent allows the user to compare any procedure to associated standards to ensure that procedure is compliant year-round.

To commence using the agent click on the “Check Procedure Compliance” highlighted in red.

Legislative Compliance Agent

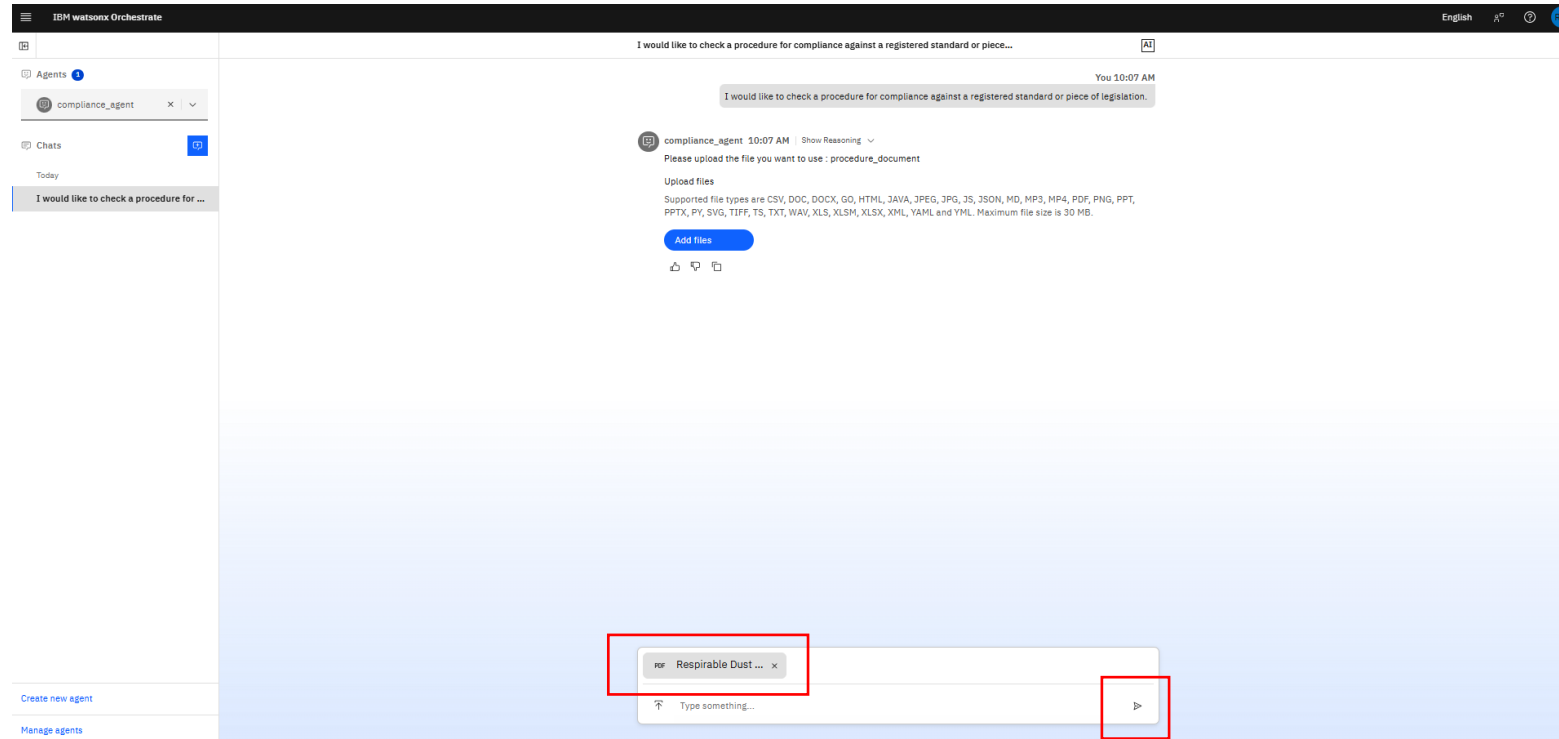


The agent will request that you upload your procedure. Just click on the blue “Add files” button.

Navigate to where your file is stored and select it.

While you can upload any type of document in this manner, pdf documents are preferred.

Legislative Compliance Agent



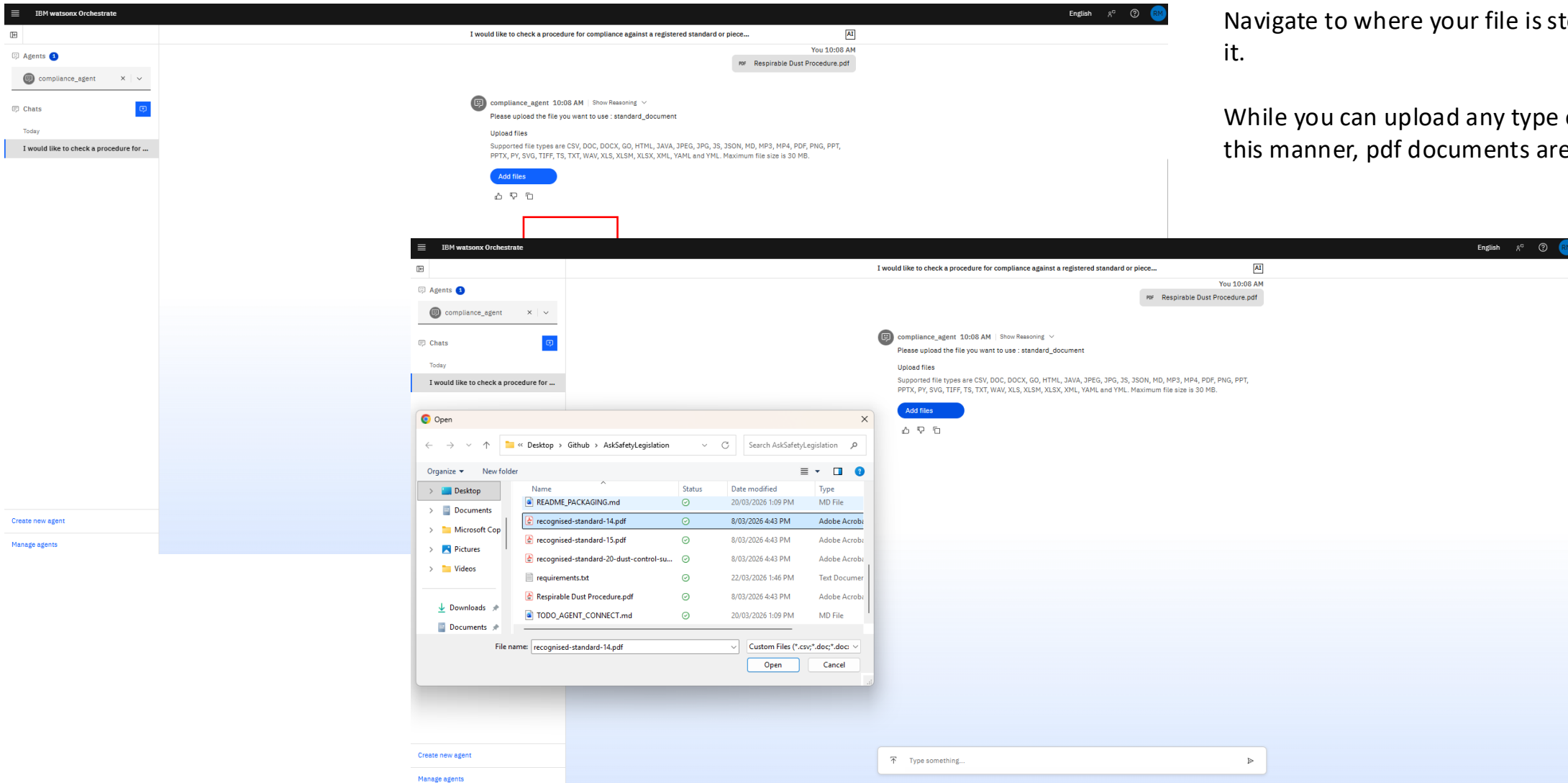
The agent will load the procedure document to the communication box. DO NOT type anything into the communication box, just press the send button

Legislative Compliance Agent

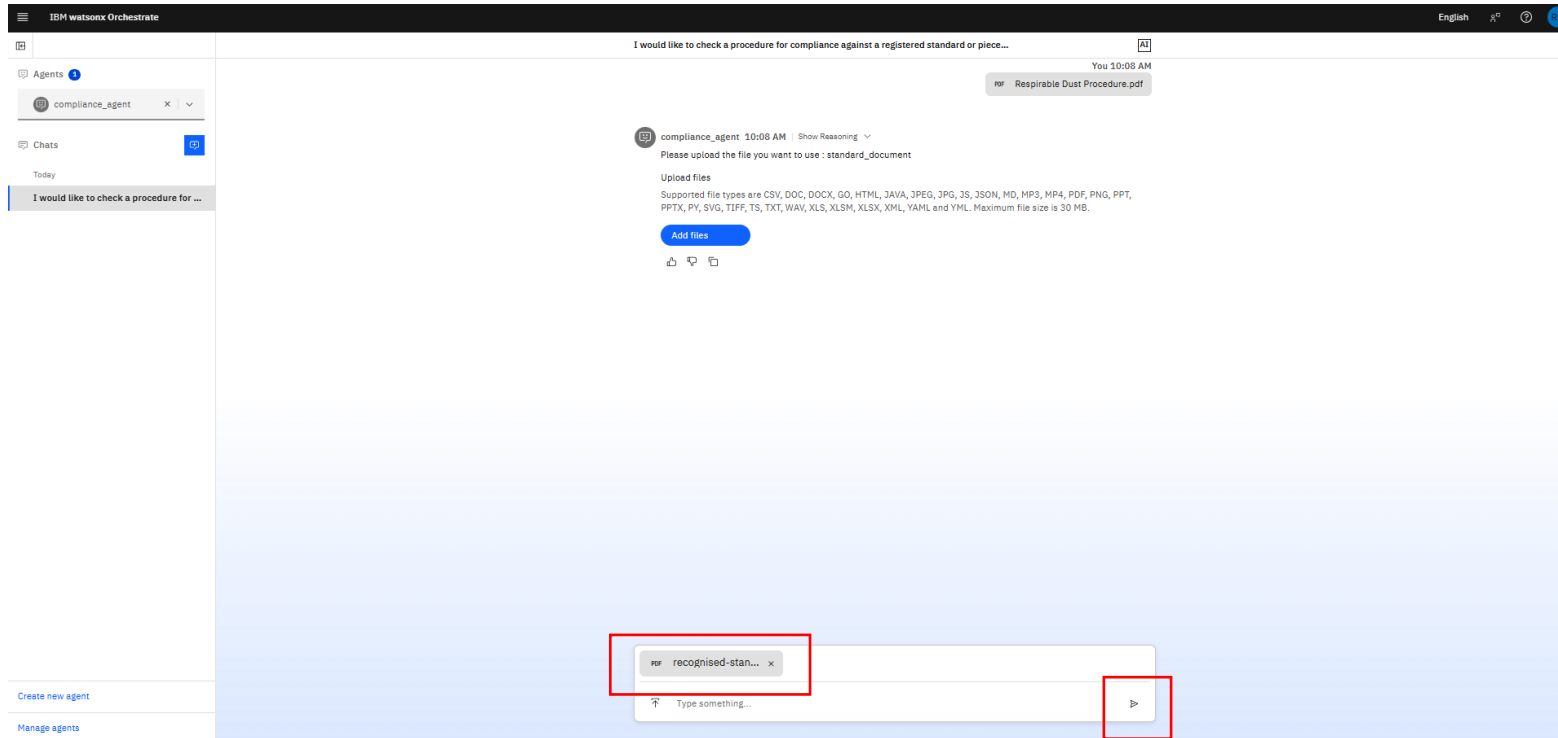
The agent will request that you upload your standard. As before, just click on the blue “Add files” button.

Navigate to where your file is stored and select it.

While you can upload any type of document in this manner, pdf documents are preferred.

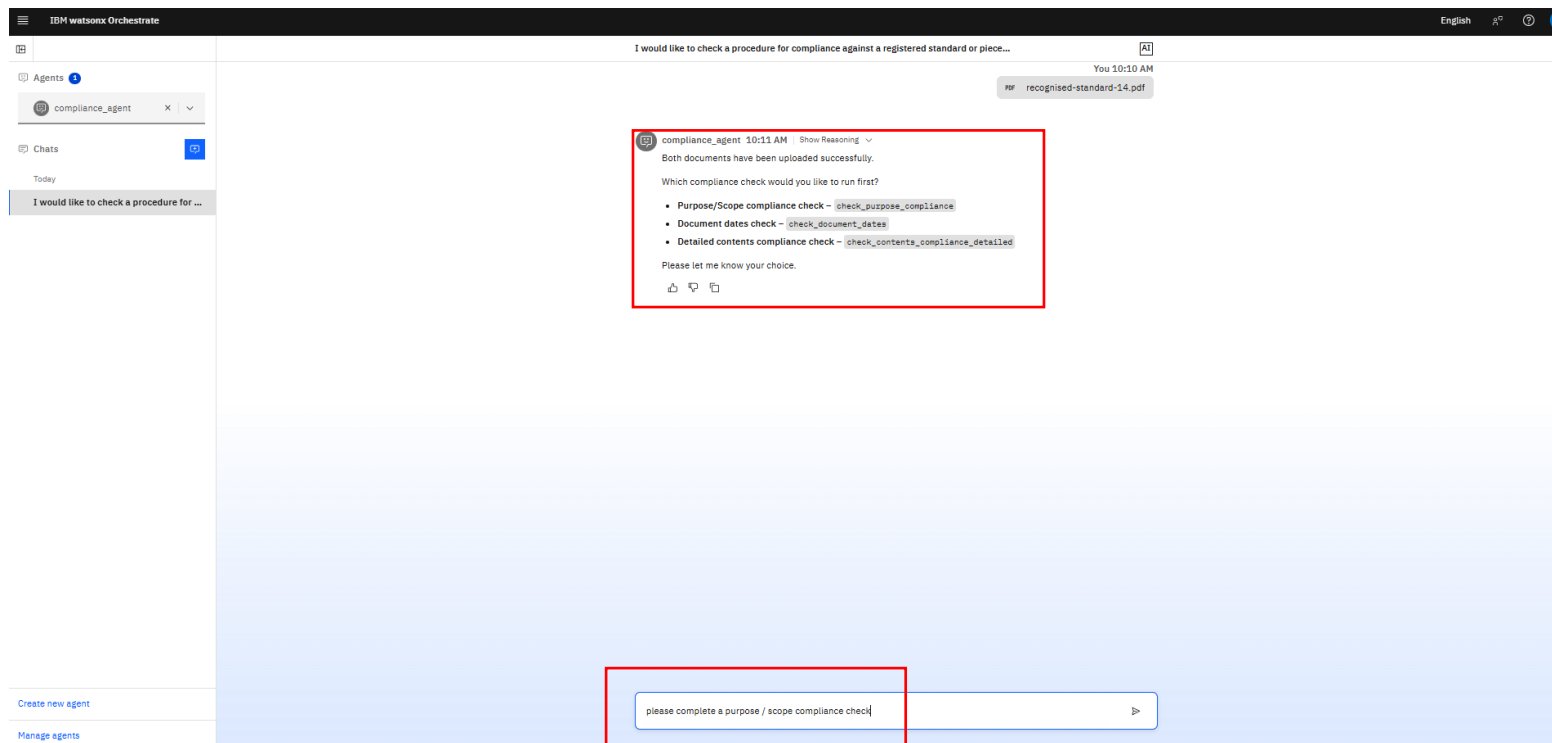


Legislative Compliance Agent



Again, the agent will load the standard document to the communication box. DO NOT type anything into the communication box, just press the send button

Legislative Compliance Agent



Once both documents are uploaded, the agent provides you with options for testing the compliance of the procedure:

1. That the procedure meets the purpose of the standard.
2. That the procedure meets date compliance i.e. has been produced after the standard.
3. A detailed comparison of the procedure with the standard.

You don't need to do all three. Type in the communication box whichever compliance assessment you would like to complete.

In this case we have chosen "purpose compliance".

Legislative Compliance Agent

The screenshot displays the IBM Watsonx Orchestrate interface. On the left, there's a sidebar with 'Agents' and 'Chats'. The main chat area shows a conversation with the 'compliance_agent'. The user's message is: "I would like to check a procedure for ...". The agent's response, dated 10:12 AM, includes:

- Message: "please complete a purpose / scope compliance check"
- Overall Verdict: **Partially Compliant (RAG= Amber)**
- Sections Analyzed: 1

Compliance	# of Sections
Fully compliant	0
Partially compliant	1
Non-compliant	0

Partially Compliant Sections

Section	Issue	Required Action	Standard / Act References
Purpose statement (p. 1)	Lacks quantitative goals for reducing respirable dust exposure	Add specific, measurable objectives for dust-reduction to align with the Standard's implied health-protection goals	Recognised Standard 14 – "to ensure compliance with s89 'dust' and s89A 'dust monitoring and reporting procedure' of the Coal Mining Safety and Health Regulation 2017 (Qld)"

Recommendations

- Medium** – Include specific, measurable objectives for reducing respirable dust exposure in the Procedure document to better align with the Standard's implied goals.

Would you like to run another check (e.g., document dates or detailed contents), or would you like a combined compliance report?

At the bottom of the chat, there is a user input field containing the text: "complete a date compliance check"

Every time the agent completes a compliance assessment, it does so with a Red, Amber, Green rating.

- Red = Non-Compliant
- Amber = Partially-Compliant
- Green = Compliant

The agent will provide an explanation as to why something is non-compliant or partially compliant.

You can see here that once the purpose compliance check has been completed, we have requested a date compliance check.

Legislative Compliance Agent

The screenshot shows the IBM Watsonx Orchestrate interface. On the left, there is a sidebar with 'Agents' (compliance_agent) and 'Chats' (Today: I would like to check a procedure for ...). The main area displays a chat conversation with the 'compliance_agent'.

Chat History:

- You 10:12 AM: complete a date compliance check
- compliance_agent 10:12 AM | Show Reasoning
Document Dates - procedure.pdf
 - Overall Verdict: ● Compliant (RAG- ● Green)
 - Sections Analyzed: 1

Compliance Summary:

Compliance	# of Sections
● Fully compliant	1
● Partially compliant	0
● Non-compliant	0

Fully Compliant Sections:

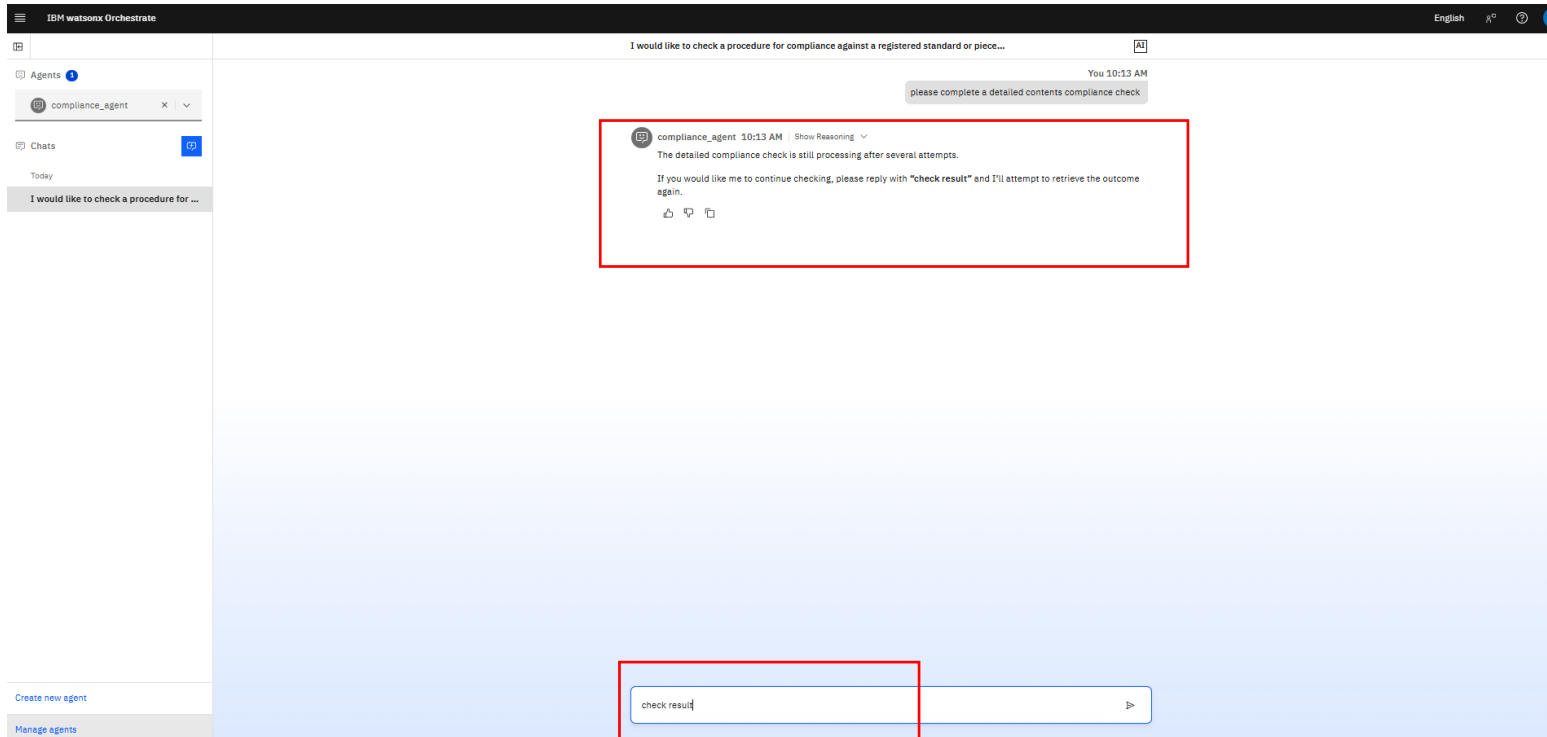
Section	Issue	Required Action	Standard / Act References
Document dates (p. 1)	Procedure date (4/02/2025) is later than standard date (August 2022)	No action needed	-

Would you like to run another check (e.g., detailed contents compliance) or generate a combined compliance report?

Input Field: please complete a detailed contents compliance check

You can see here that once the date compliance check has been completed, we have requested a detailed compliance check.

Legislative Compliance Agent



The detailed compliance check may take longer than the purpose or date compliance checks.

If a result is not received within normal time limits, the user can come back later and instruct the agent to check for the results.

Legislative Compliance Agent

I would like to check a procedure for compliance against a registered standard or piece...

Agents: compliance_agent

Chats: I would like to check a procedure for ...

You 10:15 AM check result

compliance_agent 10:15 AM | Show Reasoning

Detailed Contents - procedure.pdf

- Overall Verdict: ● Partially Compliant (RAG= ● Amber)
- Sections Analyzed: 23

Compliance	# of Sections
● Fully compliant	20
● Partially compliant	0
● Non-compliant	3

Non-Compliant Sections

Section	Issue	Required Action	Standard / Act References
Procedure (overall)	No monitoring strategy based on multiple measurements	Develop and implement a monitoring strategy based on multiple measurements of a similar exposure group	"A monitoring strategy must be based on multiple measurements of a similar exposure group"
7.6 Single Sample Exceedance Result	Does not address situations where the 95 % UCL may be unsuitable	Update procedure to address situations where the 95 % UCL may not be the appropriate metric for assessing exposure risk	"In certain situations, the use of the 95 % UCL for a SEG dataset may not be the appropriate metric for assessing exposure risk and establishing triggers for control intervention."
7.7 Investigating Exposure Exceedances	Lacks aim, factors to consider, and actions to prevent re-occurrence	Revise to include the aim, factors, and actions required for investigating exposure exceedances	"An investigation must be initiated"

Recommendations

- High - Review and update the three non-compliant sections to meet the requirements of *standard.pdf* (monitoring strategy, 95 % UCL guidance, investigation protocol).

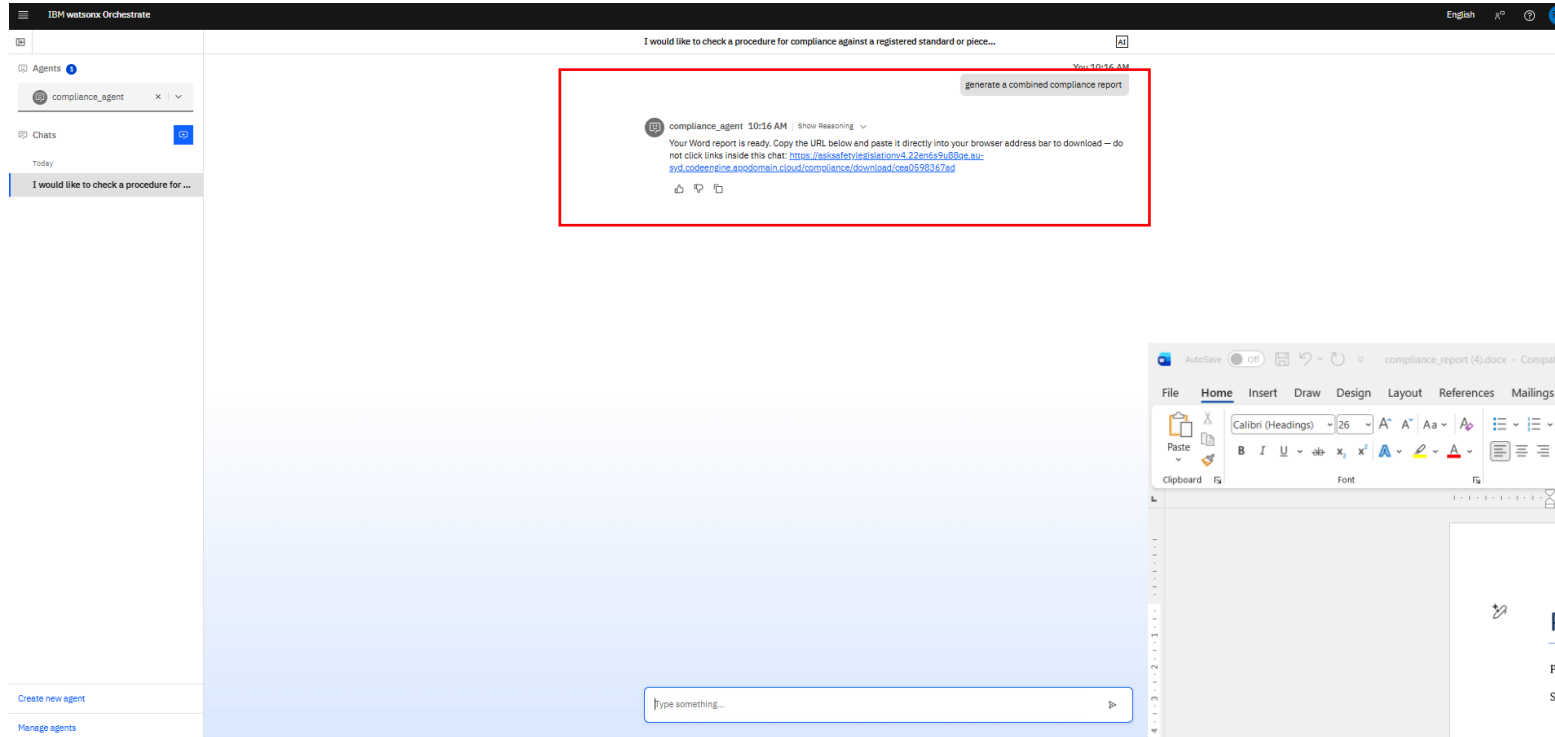
Would you like to run another check or generate a combined compliance report?

generate a combined compliance report

You can see here that the detailed compliance check provides a summary of the partially compliant and non-compliant procedure sections.

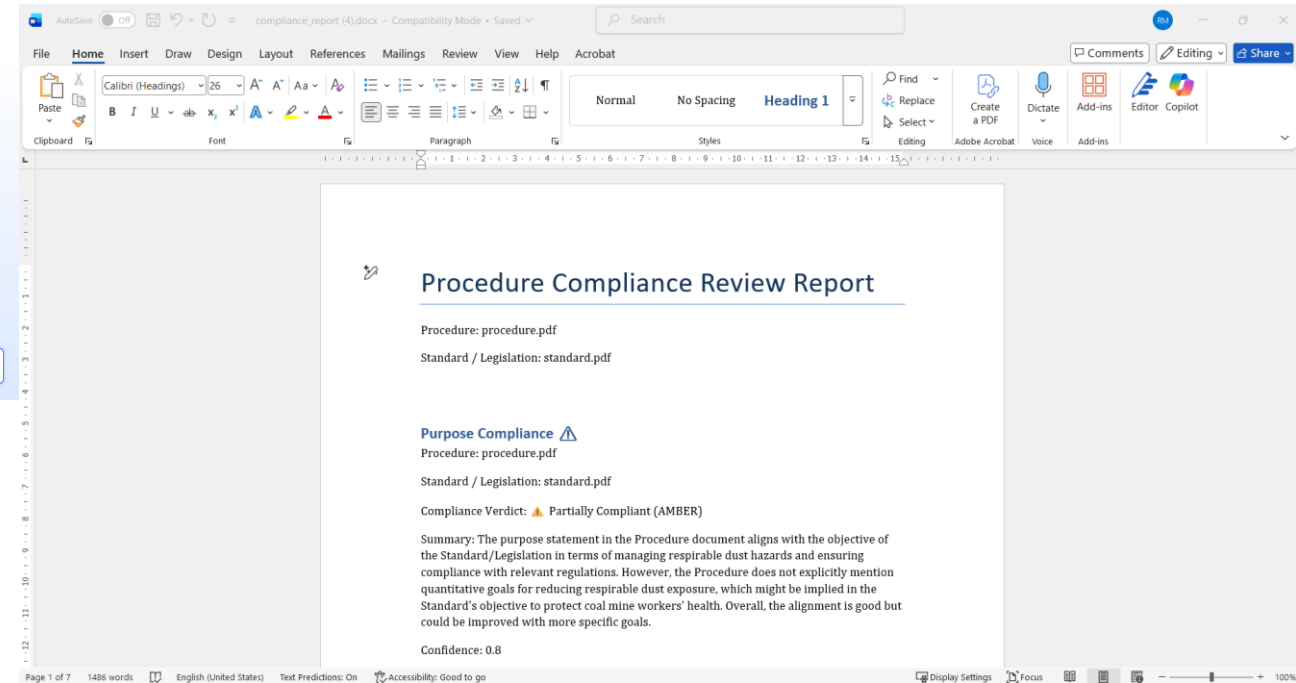
You can request a detailed report to read the assessment in detail.

Legislative Compliance Agent



The agent will provide a link for you to download the detailed report in Microsoft Word format.

The report will be in your downloads folder.



Legislative Compliance Agent

You can also ask the agent to assist you to compose suggested updates for your partially compliant or non-compliant procedure sections.

Note these updates should be reviewed and approved by the appropriate subject Matter Experts within your business.

I would like to check a procedure for compliance against a registered standard or piece...

compliance_agent 10:21 AM

▲ The following is a suggested draft only. It must be reviewed, verified against the actual standard, and approved by a competent person with the relevant authority before being adopted into any formal procedure.

When the 95% Upper Confidence Limit (UCL) May Be Unsuitable

The standard notes that the 95% UCL is a common statistical metric for assessing exposure risk within a Similar Exposure Group (SEG). However, there are specific situations where relying on the 95% UCL alone can lead to inappropriate conclusions or ineffective control decisions:

Situation	Why the 95% UCL May Be Unsuitable	Suggested Alternative Approach
Very Small Sample Sizes (e.g., 1-2 measurements)	With few data points the confidence interval becomes excessively wide, reducing its reliability as an indicator of true exposure levels.	Use the geometric mean together with the geometric standard deviation , or increase the number of measurements before applying the UCL.
Highly Variable Data (large spread in measurements)	High variability inflates the UCL, potentially masking exceedances that would be evident with a more robust metric.	Apply log-normal statistical methods or consider the 95% UCL of the log-transformed data .
When the UCL Exceeds the Occupational Exposure Limit (OEL) but the geometric mean is well below it	The UCL may trigger unnecessary control actions despite the overall exposure being acceptable.	Prioritise the geometric mean as the primary decision metric, using the UCL only as a secondary check for outliers.
Presence of Outliers or Single-Sample Exceedances	A single high reading can dominate the UCL, leading to an over-conservative assessment.	Conduct a root-cause investigation for the outlier and consider excluding it from the UCL calculation if justified, or use a robust statistical estimator (e.g., median).
Regulatory or Management-Defined Triggers Based on Different Confidence Levels	Some regulations may require a 90% UCL or 99% UCL depending on the risk tolerance of the organization.	Align the confidence level with the specific regulatory requirement or risk management policy in place.
When the SEG Definition Is Broad or Heterogeneous	A wide range of job tasks within a single SEG can produce disparate exposure data, making the UCL less meaningful.	Refine the SEG definition to create more homogeneous groups, or conduct sub-group analyses with separate UCL calculations.

Key Points to Include in the Procedure

- Assessment of Sample Size & Variability** – Before applying the 95% UCL, verify that at least three independent measurements are available and that the coefficient of variation is within acceptable limits (e.g., ≤ 30%).
- Decision Hierarchy** – Use the geometric mean as the primary indicator of compliance; apply the 95% UCL only when the sample size and variability criteria are met.
- Documentation** – Record the rationale for any deviation from the default 95% UCL approach, citing the specific condition (small sample, high variability, outlier, etc.).
- Review Cycle** – Re-evaluate the suitability of the 95% UCL annually or whenever significant changes occur in the work process, exposure controls, or regulatory expectations.

Incorporating these guidelines will help ensure that the exposure-assessment methodology remains both statistically robust and practically relevant to the mining operation's health-and-safety objectives.

I would like to check a procedure for compliance against a registered standard or piece...

Situation	Why the 95% UCL May Be Unsuitable	Suggested Alternative Approach
Very Small Sample Sizes (e.g., 1-2 measurements)	With few data points the confidence interval becomes excessively wide, reducing its reliability as an indicator of true exposure levels.	Use the geometric mean together with the geometric standard deviation , or increase the number of measurements before applying the UCL.
Highly Variable Data (large spread in measurements)	High variability inflates the UCL, potentially masking exceedances that would be evident with a more robust metric.	Apply log-normal statistical methods or consider the 95% UCL of the log-transformed data , supplement with a trend analysis over time.
When the UCL Exceeds the Occupational Exposure Limit (OEL) but the geometric mean is well below it	The UCL may trigger unnecessary control actions despite the overall exposure being acceptable.	Prioritise the geometric mean as the primary decision metric, using the UCL only as a secondary check for outliers.
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