Fix Information Overload:
Include a Visual Summary of Important Documents

Make Sure This Sits on Top of That

Car Seal on Lockbox
After locks in place:
• put key for black locks in lockbox
• write car seal number on lock box
If car seal is broken before work is finished, you have a problem. Recheck all the locks.

Two-Person Check
At least 2 people must check every lockout location.
Audit Results: 1 in 12 of our lockouts is done incorrectly.

Non-Owner Lock Removal
He forgot to remove his lock.
To cut off his lock:
• be certain he is not at work
• try to call him wherever he is
• superintendent written permission is required

Group Lockout
Lockout with three or more people requires a lockbox.
Black group-locks (all open with one key) go on the lockbox when the key for the black locks is created.

Lockout Means You Can’t Open It
You cannot turn the wheel.

Lockout Plan for Every Lockout
Lockout Plan

Remove Any Leftover Trapped Energy
His hand depends on it.

Information Overload Leads to Worse Decisions
Performance
Amount of Information
When employees have no information and you give them some, their performance improves.
After saturation, however, more information is associated with poorer decisions.

Why?
As more and more mental effort is devoted to managing the information, less mental capacity is available for understanding it.

Research shows that decision quality falls by 50% after saturation.

This Safety Minute was prepared by Larkin Communication (www.larkin.biz) in partnership with CEP.
Fix Information Overload

**Recommendation: Layer Your Documents by Increasing Amount of Complexity**
Do not delete long text-based documents (you need them). Instead, create layers of complexity so your employees can move to the level needed for their task.

**Example: Line Break Procedure Showing Three Layers of Complexity**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• mostly pictures</td>
<td>• combination of pictures and text</td>
<td>• all text</td>
</tr>
<tr>
<td>• few details</td>
<td>• visual summary of critical content</td>
<td>• encyclopedic approach to the procedure</td>
</tr>
</tbody>
</table>

Let your employees choose the level of complexity needed for their task.

The middle, picture-based layer (shown at right) is the layer that most companies are missing, but it is the easiest for employees to recall.

<table>
<thead>
<tr>
<th>A picture-based document has fewer words and is easier to recall than a text-based document.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Table:</strong></td>
</tr>
<tr>
<td>Text-Based</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Number of words</td>
</tr>
<tr>
<td>Pages</td>
</tr>
<tr>
<td>Time to read</td>
</tr>
<tr>
<td>Complexity level</td>
</tr>
<tr>
<td>Percent of U.S. adults who can read at that level of complexity</td>
</tr>
<tr>
<td>Recall of document content</td>
</tr>
</tbody>
</table>

This Safety Minute was prepared by Larkin Communication (www.larkin.biz) in partnership with CEP.
Angelika Dimoka, director of the Center for Neural Decision Making at Temple Univ., recruited volunteers to try their hand at combinatorial auctions for airport landing slots. These are complex auctions in which bidders must consider a dizzying number of factors. The challenge is to buy the combination of slots you want at the lowest price.

- As the auction took place, Dimoka measured the volunteers’ brain activity with functional magnetic resonance imaging (fMRI).
- As the information load increased, so did activity in the dorsolateral prefrontal cortex (PFC), a brain region that is responsible for decision making and control of emotions.
- But, as the researchers gave the bidders more and more information, activity in the dorsolateral PFC suddenly fell off, as if a circuit breaker had popped.
- The bidders reached information overload. At this point, they started making mistakes and poor decisions.

In another example, two groups of MBA students managed a fake portfolio of stocks.

- One group was intentionally overloaded with information.
- The other group saw only stock-price changes.
- Stocks chosen by the overloaded group performed 50% poorer.

**Decision Quality Declines by 50% After Information Saturation**


**Why Does Information Overload Lower Performance?**

- Employees have difficulty finding the most relevant information
- Too much emphasis on the most recent information as opposed to the most important information
- Filtering information takes time from learning the information
- Feelings of being overwhelmed result in less motivation to find the best solution


**Inverted U-Curve**

The plot on the first page of this Safety Minute describes how information overload leads to worse decisions. The red line shows an inverted U-curve often found in information overload research. It refers to a decline in decision-making quality as incoming information surpasses the saturation point.

The saturation point is the point at which the amount of information coming in is greater than the information processing ability of the receiver.