

EHS Monthly Updates- March 2019

Facilities/EHS
15 April 2019

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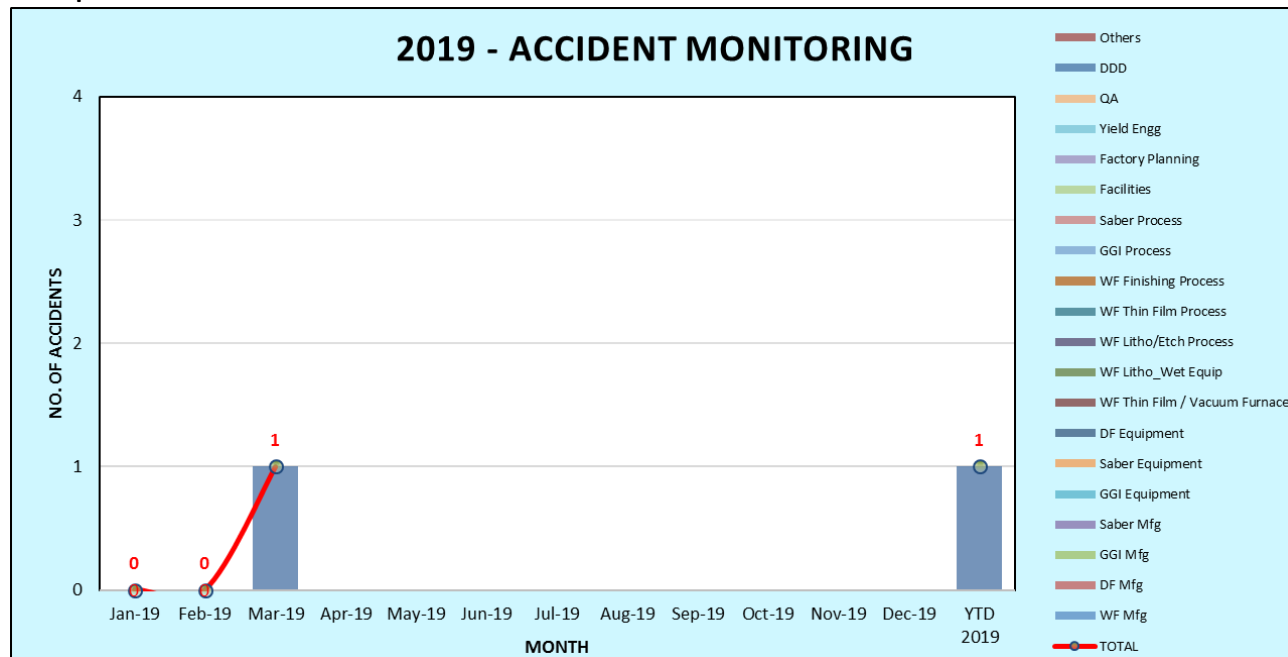
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1. EHS Monthly KPI Status

A. Accident Monitoring

Accident an event that has given rise to injury, ill health or fatality. This includes lost workday case, first aid case, restricted work case and case that requires medical treatment by a medical practitioner.



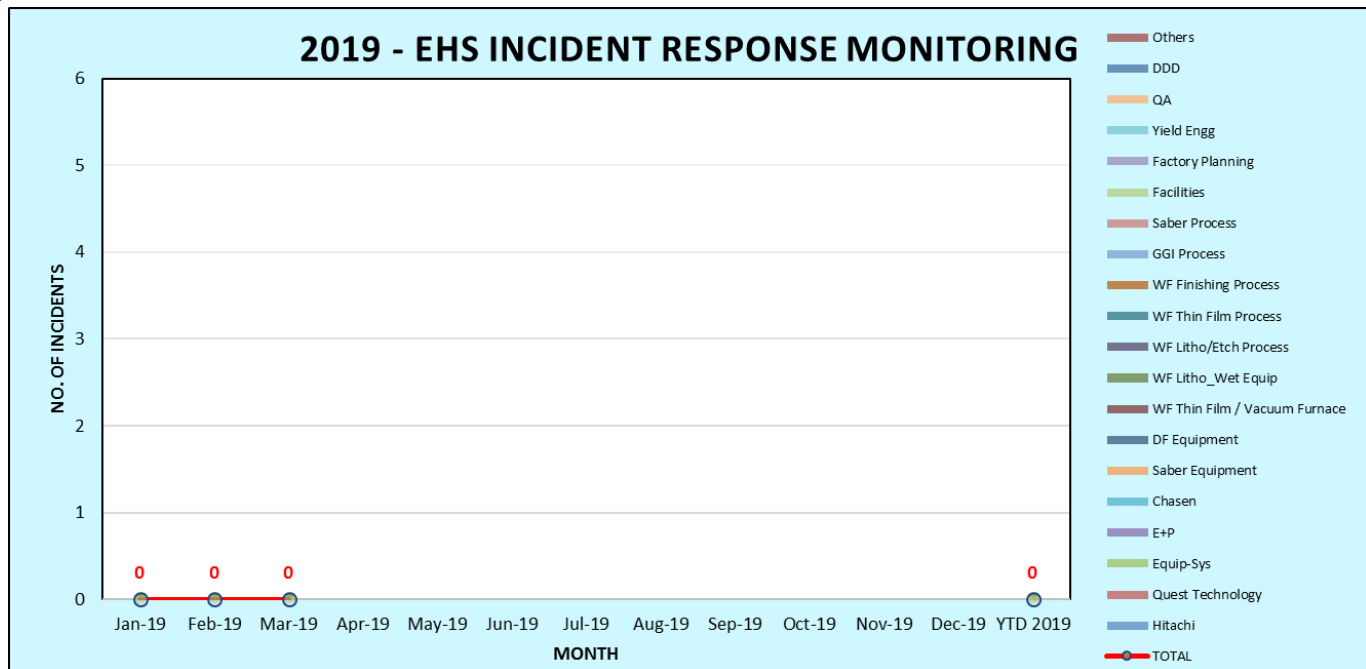
Description of Accidents:

1. January 2019 – No accident recorded
2. February 2019 - No accident recorded
3. March 2019 – One lost workday case (inhalation of Hydrochloric Acid (HCl) fumes while performing experiment in Manual Wet Bench.

1. EHS Monthly KPI Status

B. EHS Incident Response Monitoring

EHS Incident is an event that includes dangerous occurrence, and any emergency situation that requires ERT's response such as chemical spillage, gas leak, or fire, due to activities carried out at the workplace.



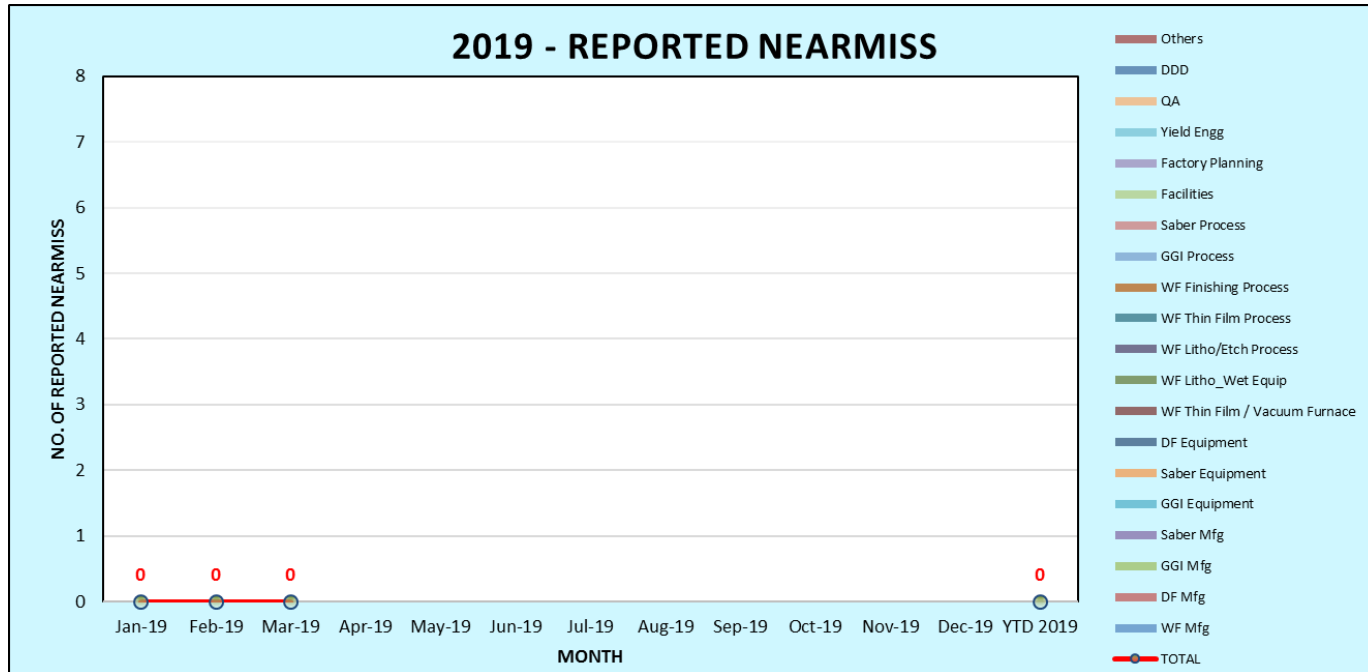
Description of Incidents:

1. January 2019 - No incident recorded
2. February 2019 - No incident recorded
3. March 2019 – No incident recorded

2. EHS Monthly KPI Status

C. Near Miss Monitoring

Near Miss - an event that does not incur injury or ill health, but has the potential to do so

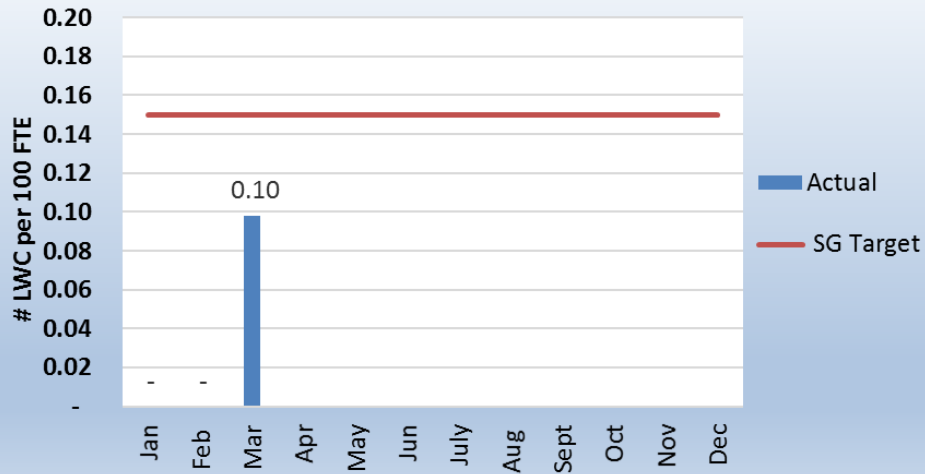


Remarks:

1. January 2019 - No near miss reported
2. February 2019 - No near miss reported
3. March 2019 – No near miss reported

2. EHS Monthly KPI Status

2019 LWC Rate (YTD)

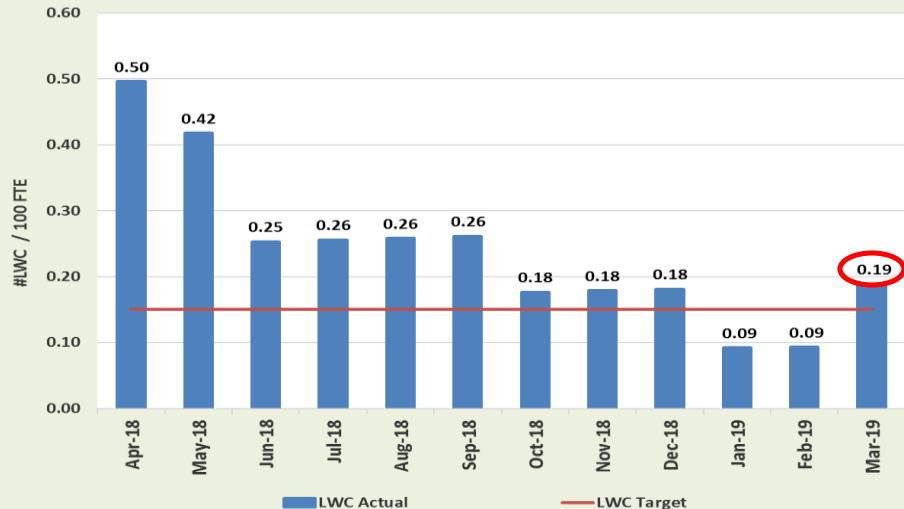


Accident Rate as of 01 Apr 2019

Lost Workday Cases Rate:

The total number of lost workday cases per 100 fulltime employees (FTE)

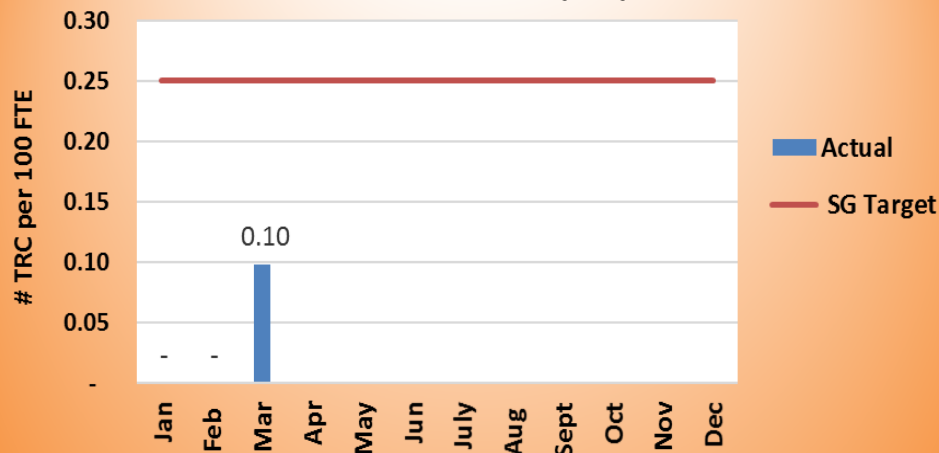
LWC Rolling Rate (12 months ave)



March 2019 – One lost workday case (inhalation of Hydrochloric Acid (HCl) fumes while performing experiment in Manual Wet Bench.

2. EHS Monthly KPI Status

2019 TRC Rate (YTD)



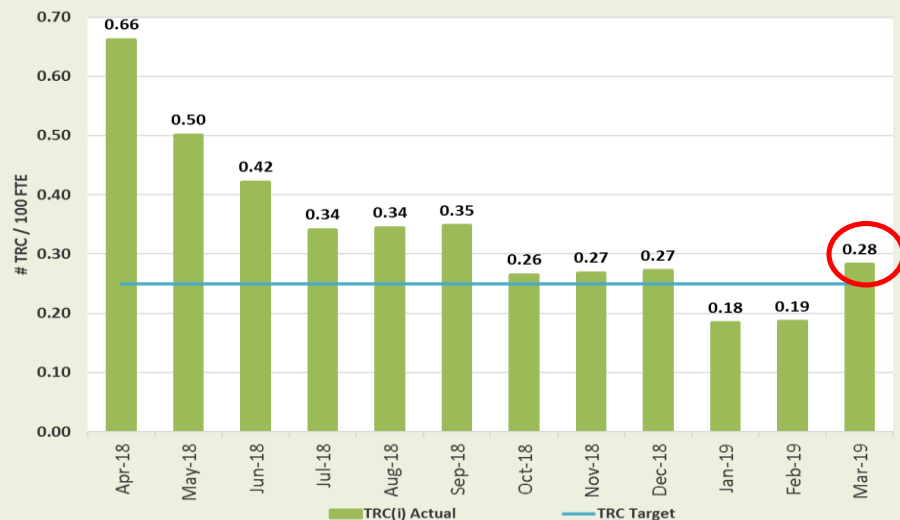
Accident Rate as of 01 Apr 2019

Total Recordable Cases Rate:

The number of recordable cases per 100 full time employees (FTE)

Recordable cases include: Lost workday case, restricted work case, medical treatment, first aid treatment case and occupational illness case

TRC Rolling Rate (12 months ave)




March 2019 – One lost workday case (inhalation of Hydrochloric Acid (HCl) fumes while performing experiment in Manual Wet Bench.

3. Safety Flash – Lost Workday Case in Singapore

Safety Flash -LED

Factory : Lumileds Singapore Wafer Fab Production

Accident description (LWC)

	Information	Picture*
Department	Die Design Development (DDD)	
When	08 March 2019 ; 3:00pm	
Where	Manual Wet Bench WF-WBH 26	
Description	The engineer was performing an experiment within the manual wet bench that involved immersing a wafer into a heated bath of HCl acid @ 70°C. In this activity, he needed to intermittently observe for reaction on the wafer surface throughout the experiment. The employee leaned forward in order to have a good visual of the wafer surface reaction, thereby exposing his head & upper body within the exhaust hood. He accidentally inhaled HCl fumes and felt irritation in his nose. Immediately, he stopped all activities and went out of cleanroom to take some fresh air and rested. On Monday morning, he visited the Clinic to get medical advice as he was unsure if the symptoms he had experienced on Friday night and over the weekend was related to flu or exposure to HCl fume. He was then given two days of medical leave by the in-house Doctor to rest and to observe his condition.	
Injury	Engineer experienced nose irritation immediately after accidentally inhaled Hydrochloric Acid (HCl) fumes while performing experiment in Manual Wet Bench.	

Root cause analysis and actions


Root causes	Actions	When
Incomplete Risk Assessment	<ol style="list-style-type: none"> 1. Stop all activities in tool WF-WBH26 2. Review EHS risk assessment on all activities in WF-WBH26 3. Verify WF-WBH26 fume hood exhaust performance/efficiency 4. Engage vendor to retrofit secondary sash on the tool for WF-WBH26 5. Update and fan-out manual acid bench work instructions 6. Update procedure on chemical and waste management and EHS Equipment Buy Off 	<ol style="list-style-type: none"> 1. DONE 2. DONE 3. DONE 4. WW21 5. WW21 6. WW18

3. Safety Flash – Sharing of Accidents

Safety Flash LED

Factory : Lumileds PENANG

Accident description (First Aid Case)

	Information	Accident description with picture
Reference No.	P2-01-19	
Department	Phosphor Tech	
When	1 Mar 2019	
Where	P2 Production (I-Gen2)	
Description	Employee tried to explain the tool's (sorting/PnP) function to another engineer and when he tried to point to the tool arm, suddenly the arm flipped and he quickly retrieve his finger. Employee was not aware that machine door interlock was by-passed for troubleshooting by another employee who was standing beside the machine.	
Injury	Minor laceration on right middle finger.	

Root cause analysis and actions

Root causes	Actions	When
<u>Unsafe act</u> No indication (signage/barricade) to alert that the machine interlock was in by-pass mode.	<ol style="list-style-type: none"> Employee communication to share on the incident plant wide Aligned with EEG, Process and PD team – to put on barricade when machine interlock is by-passed or under maintenance – implementation standardize across P1 and P2. To document this implementation in General Safety Procedure LFAC-0025. Briefing to Mses/Technicians on the barricade requirement during COMCELL by respective supervisor/managers 	Closed WW 18 WW 18 WW 18

4. EHS Procedure Updates

SG-FAC-SWI-001_Chemicals & Hazardous Wastes Management

1.1 Implement medical surveillance for employees as mandated based on the WSH (Medical Examinations) Regulations.

This statutory medical examination helps in monitoring health status of workers to determine departures from normal health and to take corrective actions. In addition, this monitoring ensure workers remain medically fit for work.

1.1.1 Pre-placement medical examination by a designated workplace doctor for employees to be employed in hazardous occupations and be certified fit to work in such occupation not later than 3 months after the date he commences his employment.

1.1.2 Respective managers/supervisors to ensure to notify and arrange with EHS for medical examination if there are transferred employees that will be assigned in their department that would require mandatory medical examinations.

1.1.3 Register of Employees requiring mandatory medical examination to be maintained by EHS.

1.2 When Working on Laboratory Fume hood, Manual Sinks:

1.2.1 Laboratory equipment and glassware containing chemicals should be placed at least 15 cm behind the sash opening. This reduces exposure to any chemical vapour that may escape from inside the fume hood or manual sink back into the laboratory due to air turbulence

1.2.2 Do not use the ventilated area of the fume hood as a storage cabinet for chemicals.

1.2.3 Do not allow your head to enter the plane of the hood opening.








1.2.4 When sash is available, always pull the sash all the way down or close it when the tool is not in use.

1.2.5 For manual sinks, always cover the chemical tanks at all times when they are not in use.



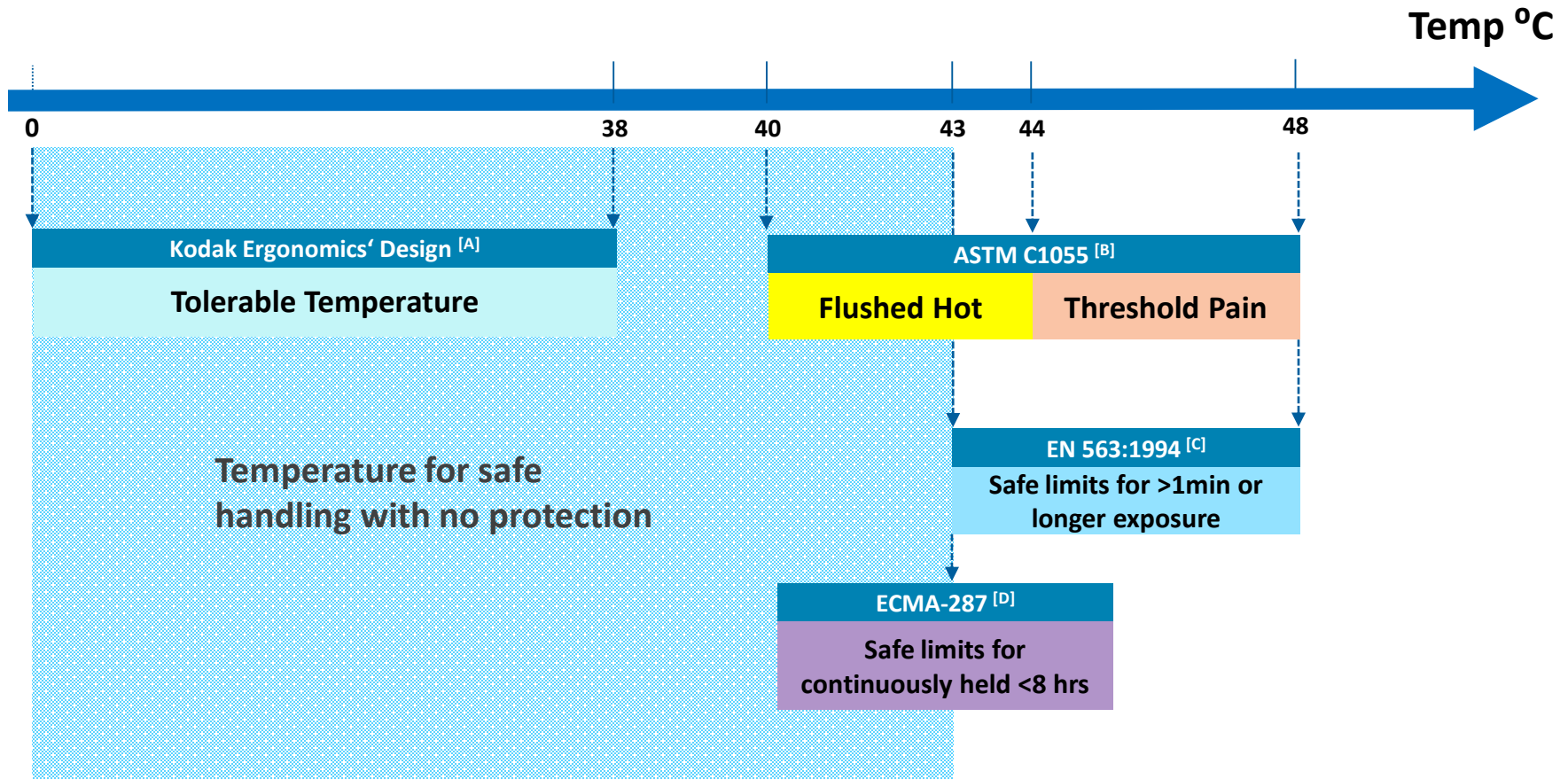
5. EHS Risk Assessments

Risk Assessment Review - Total of **80 RA(s)** reviewed as of 27.03.19

Name	Date modified	Type	Size
 1. RA Records	27/3/2019 2:01 PM	File folder	
 2. RA Summary of Risk Register	28/3/2019 3:22 PM	File folder	
 3. RA (for EHS review)	27/3/2019 2:10 PM	File folder	
 4. RA Leaders	27/3/2019 4:29 PM	File folder	
 5. RA Ratings - Env & HS	27/3/2019 2:05 PM	File folder	
 6. RA Training Material	27/3/2019 2:06 PM	File folder	
 7. RA Form	27/3/2019 2:07 PM	File folder	

Where to look for updated risk assessments (RA): <Y:\Risk Assessments\1. RA Records>

6. Other Matters - Recommended temperature of touchable surfaces



Recommended temperature of touchable of any surfaces by EHS Team is set at <43°C.



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