Incident Investigation

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LOOP LLC

Pipeline SMS

LOOP Overview

- LOOP has 212 direct employees
- Only crude oil Deepwater Port in the U.S.
- Bi-directional 48" pipeline used to load and offload vessels
- Storage capacity exceeds 70 M barrels
- Currently services ~18% of U.S refining capacity and ~40%-50% of lower MS River refining demand
- Began Implementation of API RP 1173 (SMS) in 2016

Incident Investigation Tool

Investigation Program Description
- Initiation
- Information Collection
- Analysis
- Approvals
- Close Out

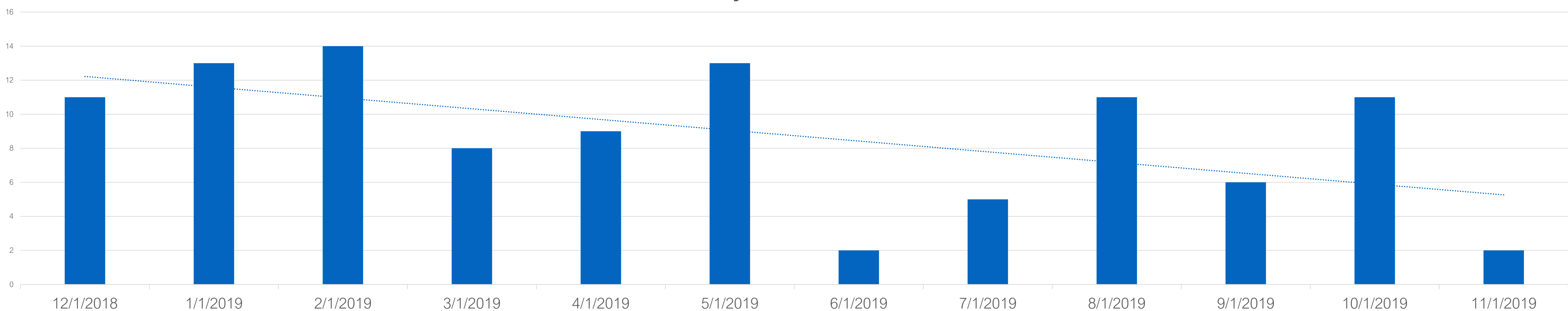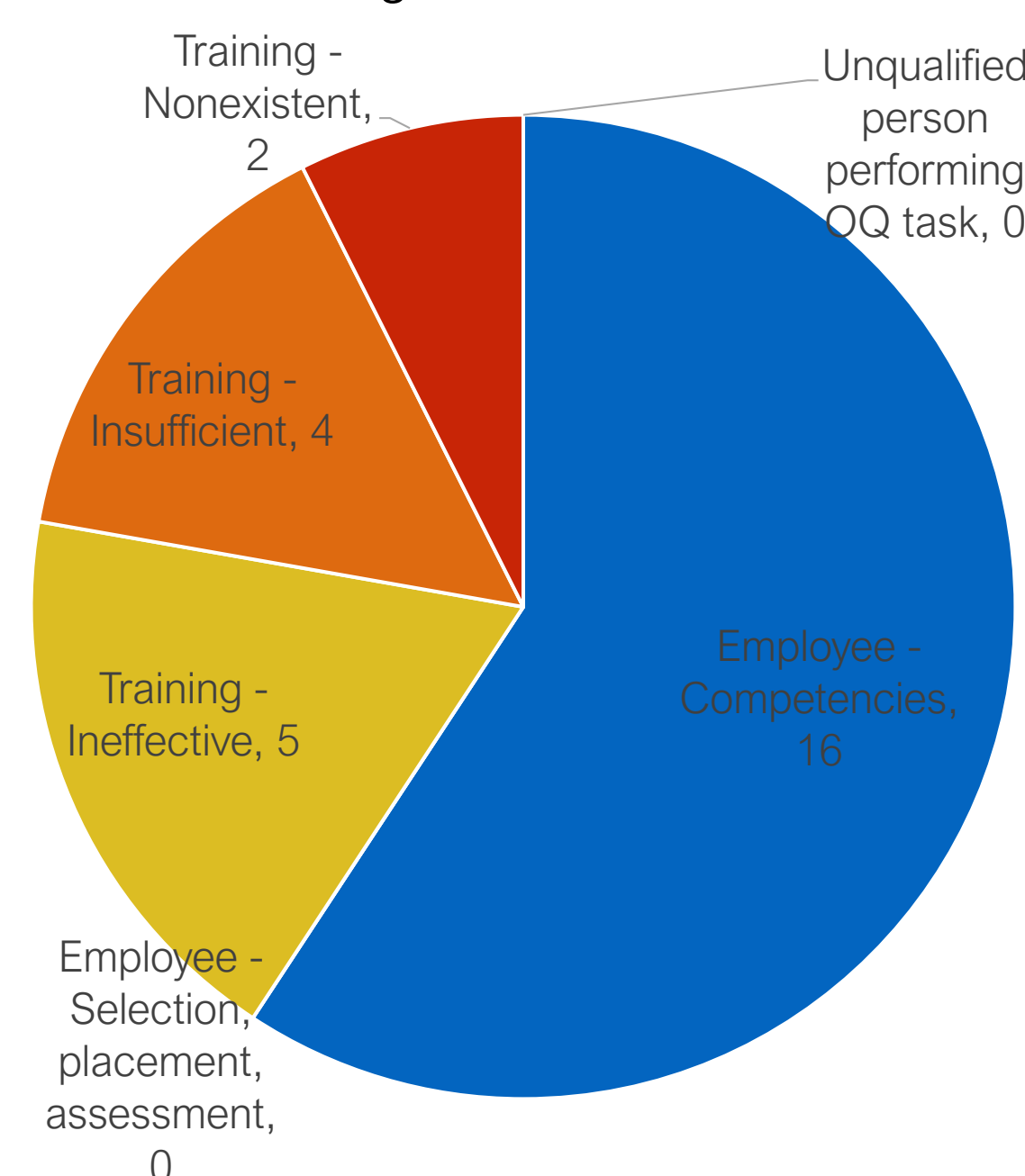# Multi-Step Investigation Process

Pipeline SMS

ID	Status	Info	* Action Title	State:	Action Type	Tools	Reference Links	Role
36595	✓		Notification: An incident has just been reported	... Initiation	Notify First			Initial Notifications Group
36596	✓	▤	Save all documentation you currently have on this incident	... Initiation	Perform			INITIATOR
36598	✓	▤	Identify witnesses, other involved persons, and others with information (for future interviews), if applicable	... Initiation	Perform			INITIATOR
36597	✓		Document official title and complete Incident form details	... Initiation	Perform Last			Incident Coordinator
36741	✓		Set clock values	... Information Collection	State Start System Function			Incident Coordinator
36593	✓		Complete Incident Severity Matrix.	... Information Collection	Screen First			Incident Coordinator
36594	✓	▤	Select the responsible manager or executive for this incident investigation	... Information Collection	Checklist First			Incident Coordinator
36740	✓		Capture Operational Item data..	... Information Collection	Perform First			Incident Coordinator
36742	✓		Identify affected assets	... Information Collection	Perform First			Incident Coordinator
36738	✓		An investigation has begun on a Level 0 or 1 incident	... Information Collection	Notify			Management Notification Group
36739	✓		An investigation has begun on a Level 0 or 1 incident	... Information Collection	Notify			Executive Notification Group
36736	✓		Assign investigator	... Information Collection	Perform Last			Responsible Manager
36737	▬		Select this tool if you wish to create a Lessons Learned for this Low Severity Incident	... Analysis	Perform			INVESTIGATOR
36845	✓		Identify Lesson(s) Learned	... Analysis	Perform			INVESTIGATOR
36847	✓	▤	Create SMS Conclusion	... Analysis	Review			Responsible Manager
36846	✓	▤	Select Roll Out group	... Approvals	Checklist			Responsible Manager
36973	✓		Notification: Lessons Learned have been created for a Level 0 or 1 incident.	... Approvals	Notify Last			Management Notification Group
36971	✓	▤ⓘ	Rollout Incident and Lessons Learned to your department or crew employees	... Close-out	Perform First			Clovelly Maint Supervisor
36972	✓	▤ⓘ	Rollout Incident and Lessons Learned to your department or crew employees	... Close-out	Perform First			LOCAP Supervisor
36970	✓	▤	Review Lessons Learned Feedback	... Close-out	Perform Last			Responsible Manager

SMS Connectivity Items - Last 12 Months

Date	Value
12/1/2018	11
1/1/2019	13
2/1/2019	14
3/1/2019	8
4/1/2019	9
5/1/2019	13
6/1/2019	2
7/1/2019	5
8/1/2019	11
9/1/2019	6
10/1/2019	11
11/1/2019	2

SMS - Competence, Awareness and Training - Last 12 Months

- Training - Nonexistent, 2
- Unqualified person performing OQ task, 0
- Training - Insufficient, 4
- Training - Ineffective, 5
- Employee - Selection, placement, assessment, 0
- Employee - Competencies, 16

SMS - Operating Procedures - Last 12 Months

- Work permits, 8
- Work plans, 5
- Safe Work Practice - Not followed, 15
- Hazardous materials, 10
- Procedure - Inadequate, 10
- Safe Work Practice - Nonexistent, 0
- Safe Work Practice - Inadequate, 7
- Procedure - Not followed, 20
- Procedure - Nonexistent, 2
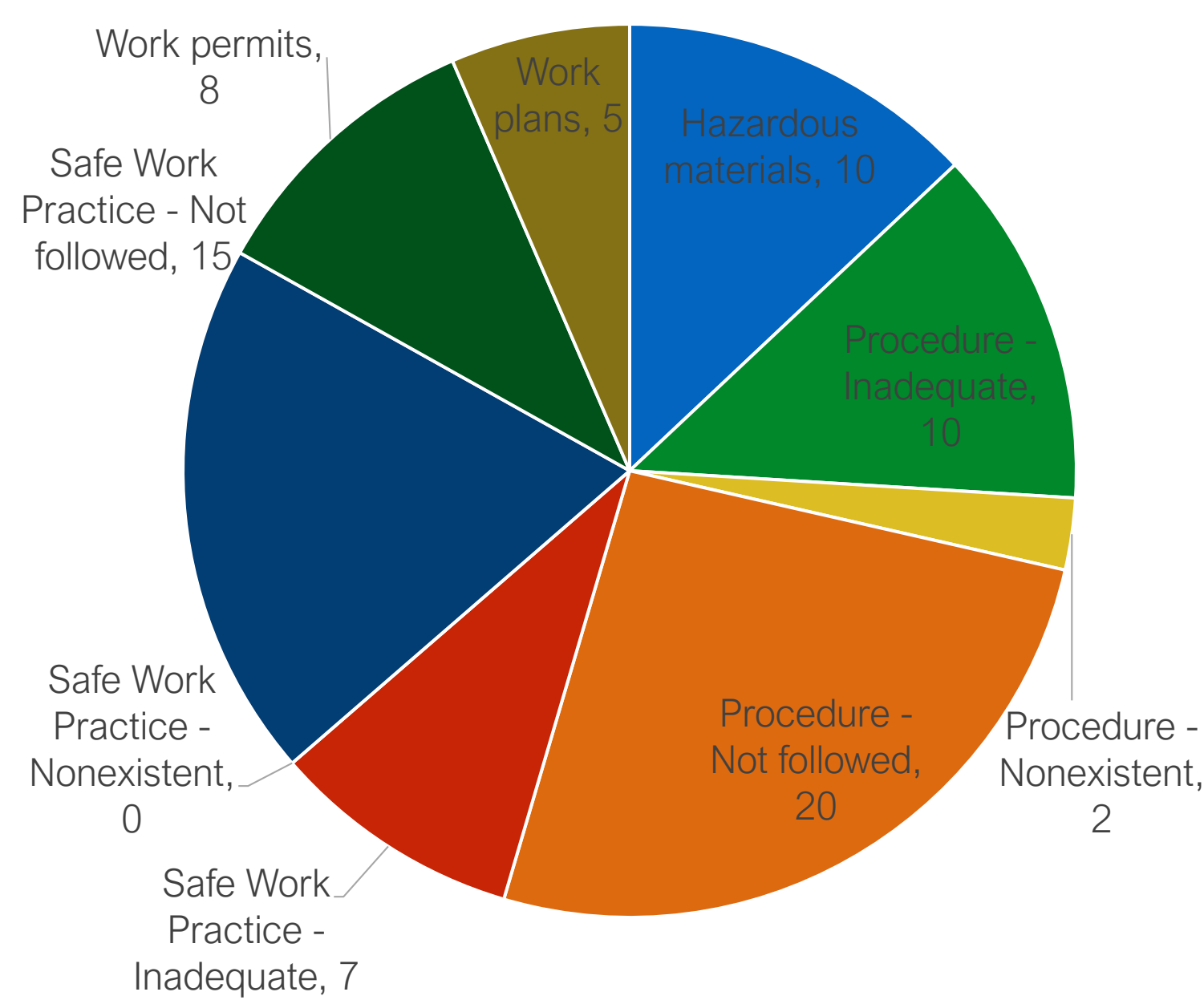
SMS - System Integrity - Last 12 Months

- Project Execution, 6
- Quality control, 3
- SCADA, 0
- Abandonment / Decommissionin...
- Maintenance procedures, 0
- Maintenance execution, 5
- Inspection, 9
- Construction, 9
- Design, 10
- Equipment, 32
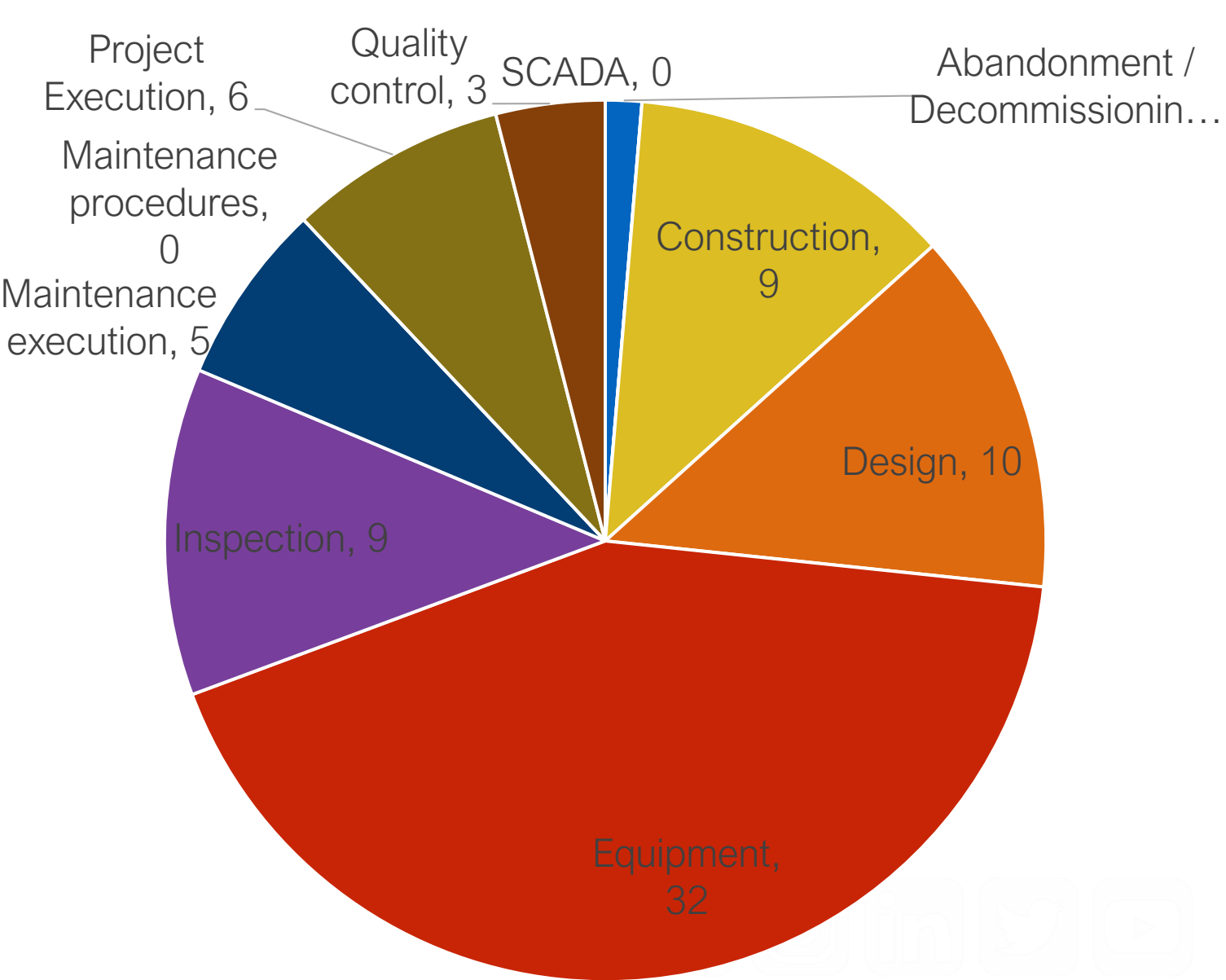
Lessons Learned and Sharing

Pipeline SMS

Incidents by Severity - Last 12 months

Level 3 1%
Level 2 2%
Level 4 0%
Level 5 0%
Level 1 44%
Level 0 53%
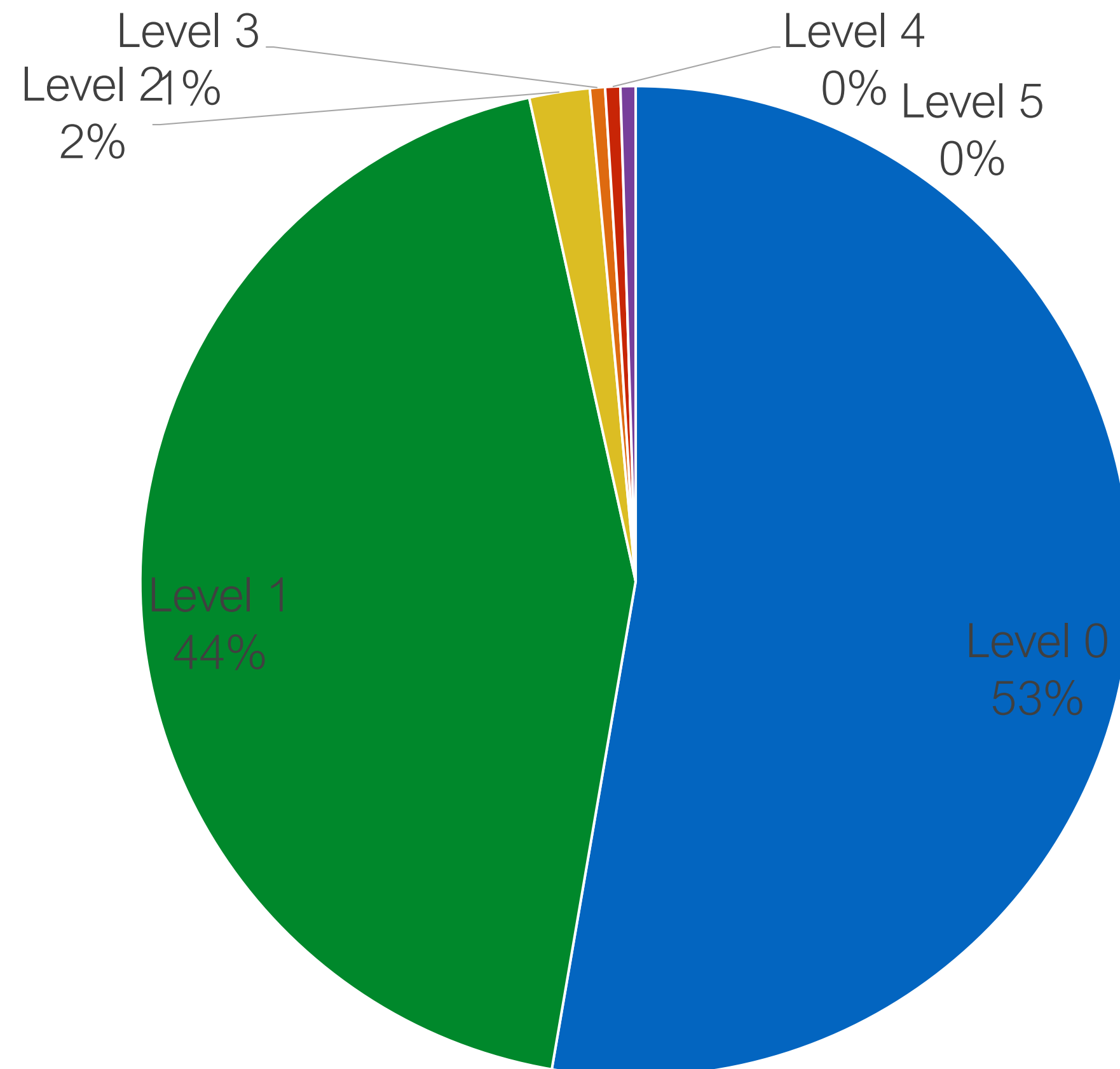
Creating Lessons Learned
- Lessons Learned can be created for any severity level
- Quality over Quantity
- Include SMEs when creating
- Roll out to the organization

Potential SIF Process and Sharing
- SIF = Serious Injury or Fatality
- Incident and Near Miss quarterly review
- Potential SIF and Lessons Learned are reviewed with priority
- One page Potential SIF memo drafted and communicated through organization

THANK YOU!

Visit us at: pipelinesms.org

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