



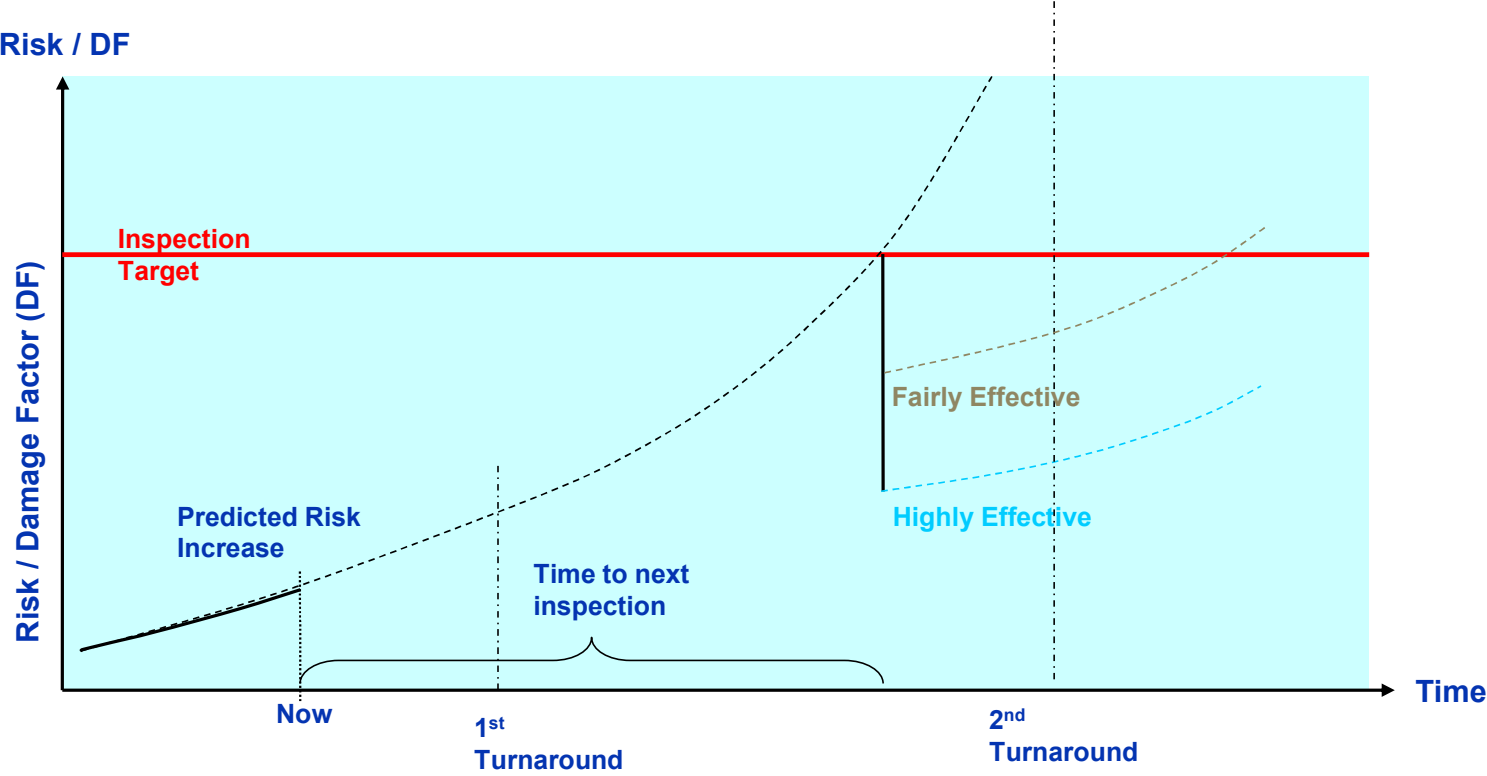
WHEN TRUST MATTERS

# Synergi Plant Best Practice implementation

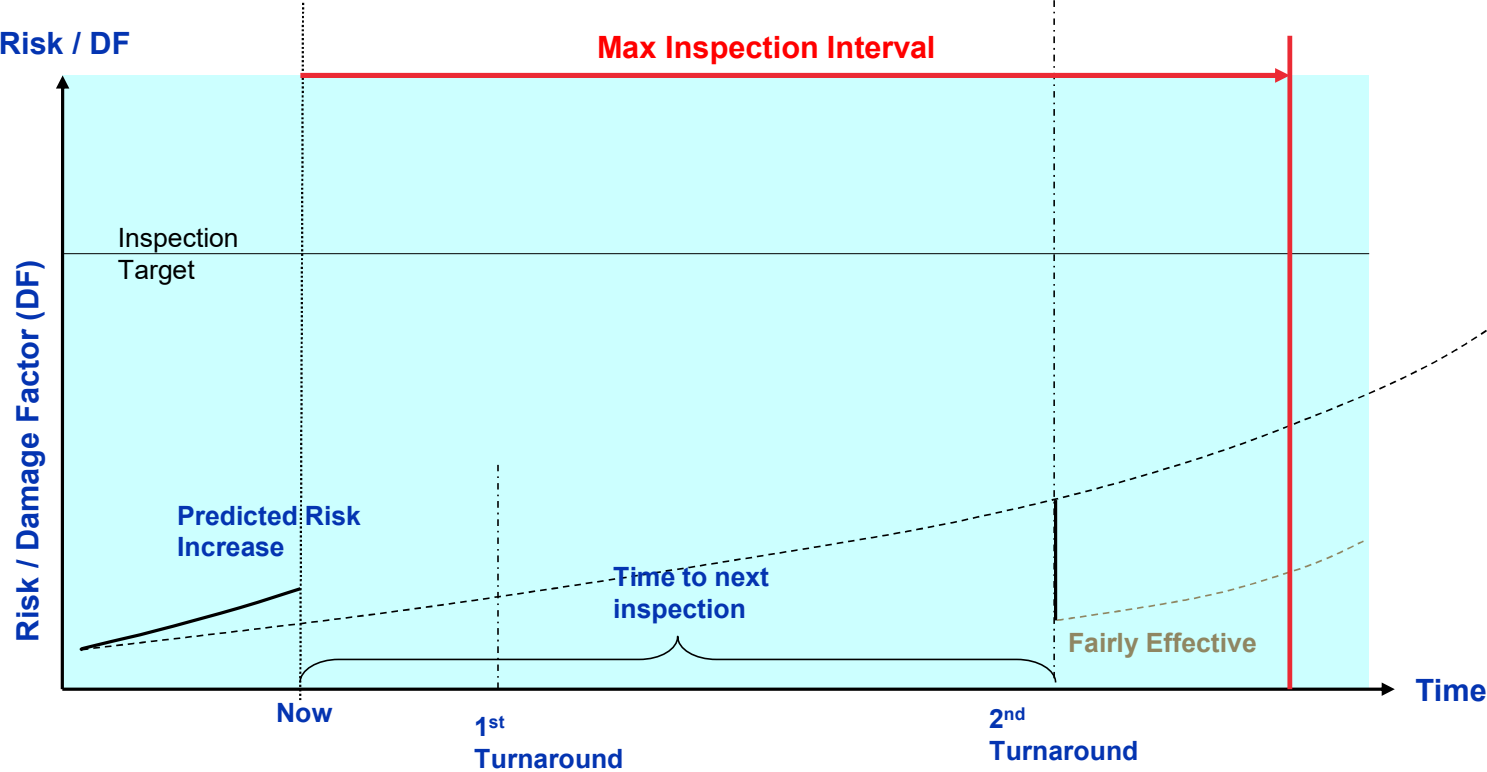
Case studies – Inspection Optimization

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# RBI – Planning based on risk target – for high risk items



# RBI – Adding max inspection interval – for low and medium risk items



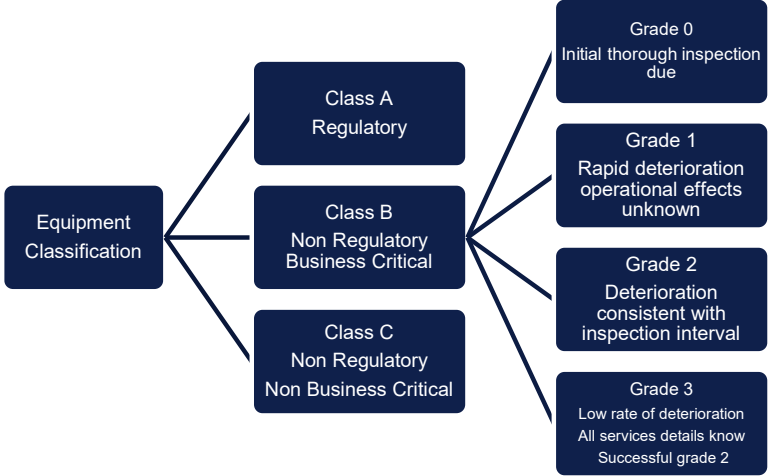
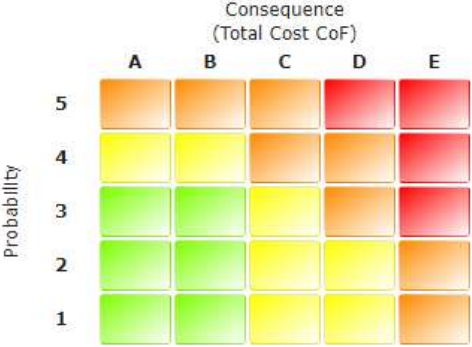
# Practices of setting max inspection interval

- Combining risk-based and time-based fixed interval
  - ✓ 1. Do RBI right after every inspection and calculate max interval based on evaluation date, or
  - ✓ 2. Do RBI anytime and calculate max interval based on last inspection date instead of RBI dateSo the length between every two inspections will not exceed the max interval
- Combining equipment class, grade, and risk category to set max interval dynamically
  - Equipment class – Regulatory or non-regulatory, business critical or non-business critical
  - Equipment grade – Deterioration situation
  - Risk category – From RBI risk assessment



# Inspection max interval

– Based on equipment class, grade, and risk category



Risk Category
1. LOW
2. MEDIUM
3. MEDIUM HIGH
4. HIGH

Risk Category	Grade 0	Grade 1	Grade 2	Grade 3
Low	24	72	84-96	108-120
Medium	24	48	72	96
Medium High	24	36	48	72
High & Very High	Notes			

# Tag and Part datasheets

**X-27: Equipment details**

Tag no	X-27	Process unit	Downstream Unit
Equipment type	Exchanger Shell	Legal No	
Name		Equipment notes	
Equipment Classification	Class B	Inspection Grade	Grade 2
Corrosion Circuit	CC6	Section	
Inventory Group	IG5	Contribute to group inventory	<input checked="" type="checkbox"/>

**X-27-Shell: Element details**

Element no	X-27-Shell	Equipment Tag no	X-27	Process Unit	Downstream Unit
Element type	* Shell Tube Heat Exchanger	Schedule separately (Internal)	<input type="checkbox"/>	Schedule separately (External)	<input type="checkbox"/>
Name		Element notes			
Equipment Classification	Class B	Inspection Grade	Grade 2		
<b>Worst Max Interval</b>					
CoF Category	E	PoF Category	3		
Risk Category	H	Maximum Interval	36 MONTH	Review Interval	36 MONTH
<b>RBI Parents</b>					
Corrosion Circuit	CC6	Section			
Inventory Group	IG5	Contribute to group inventory	<input checked="" type="checkbox"/>		

# Max interval lookup

Synergi Plant : Facility management | Facility | Reports | Asset Configuration | Legacy Facility | User 02 | EN-US | SPT572 | Version No: 5.7.2.629 / 5.7.2.084

DataSheet Listing / Details | DataSheet Class Link | DataSheet Grid Lookup | Facility Setup

Datasheet: SDS-1036 | Max Insp Interval Lookup

Filter: No Filter Applied | Show: Show All entries

<input type="checkbox"/>	Equipment Risk and Grade	Maximum Interval (MONTH)	Review Interval (MONTH)	Updated By	Updated On
<input type="checkbox"/>	L*Grade 0	24	84	MGR	11/04/2023
<input type="checkbox"/>	L*Grade 1	72	72	MGR	11/04/2023
<input type="checkbox"/>	L*Grade 2	84	72	MGR	11/04/2023
<input type="checkbox"/>	L*Grade 3	108	72	MGR	11/04/2023
<input type="checkbox"/>	M*Grade 0	24	60	MGR	11/04/2023
<input type="checkbox"/>	M*Grade 1	48	60	MGR	11/04/2023
<input type="checkbox"/>	M*Grade 2	72	60	MGR	11/04/2023
<input type="checkbox"/>	M*Grade 3	96	60	MGR	11/04/2023
<input type="checkbox"/>	MH*Grade 0	24	48	MGR	11/04/2023
<input type="checkbox"/>	MH*Grade 1	36	48	MGR	11/04/2023
<input type="checkbox"/>	MH*Grade 2	48	48	MGR	11/04/2023
<input type="checkbox"/>	MH*Grade 3	72	48	MGR	11/04/2023
<input type="checkbox"/>	H*Grade 0	12	36	MGR	11/04/2023
<input type="checkbox"/>	H*Grade 1	24	36	MGR	11/04/2023
<input type="checkbox"/>	H*Grade 2	36	36	MGR	11/04/2023
<input type="checkbox"/>	H*Grade 3	48	36	MGR	11/04/2023

Showing 1 to 16 of 16 entries | First | Previous | 1 | Next | Last

# Screenshot – Damage specific optimization

Inspection Effectiveness	Inspection Task ^	Inspection Task Descri	Adjusted Factor ^	Adjusted Category ^	Target Met ^	Intrusive ^	RBI assessor commen	RBI Recommend Date	Maximum Interval ^
Fairly	NonIntr+50UT/ Ran...	For the total surface...	0.1	1	Y	N		02/03/2108	48
Fairly	NonIntr+30VT+UT/...	Visual inspection of ...	0	1	Y	N		02/03/2108	48
Fairly	NonIntr+35UT C Sc...	For the total surface...	42.65096	3	Y	N		22/10/2065	36

3. Original RBI Recommended Date

4. Damage Specific Max Interval

Synergi Plant : Standard | Facility Data | **RBI** | Inspection | Work Pack | Monitored data | Anomaly | Dashboard | Configuration | RBI Setup

Calculation Input | Assessment | Screening | Audit Trail | Executive Summary

Assessment: Sample RBI for multiple assets 2023-1

Search Asset: SAMPLE PLANT.CRUDE UNIT.X-27.X-27-SHELL

Asset: SAMPLE PLANT.CRUDE UNIT.X-27.X-27-SHELL | Description: X-27-Shell | Status: On Going - Assessm

Overview | Asset Data | Consequence Calculation | Final Consequences | Damage Mechanisms | Likelihood Calculation | Final Probability | **Inspection**

Filter

Inspection Recommendation | Copy To Inspection Plan | Regenerate Recommendations

Name ^	Location ^	Damage Mechanism ^	Target Factor ^	Current Damage Fact	Current Category ^	Future Damage Factor	Future Category ^	Inspection Date ^
X-27-Shell		Internal Thinning	100	0.1	1	0.1	1	20/04/2027
X-27-Shell		External Thinning	100	0	1	0	1	20/04/2027
X-27-Shell		Internal SCC	100	31.89188	3	42.65096	3	20/04/2026

1. Damage Mechanism

2. Damage Specific PoF Category

5. Final RBI Recommended Date



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