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One integrated system.
Total procedure optimization.

Edit

Create new procedures or modify existing ones in a single secure integrated electronic database. Eliminate formatting altogether and import easily from MS Word.

Analyze

Use a powerful procedure analyzer designed for best practices and writing standards. Scan for risk-ranked rule violations to ensure writers maintain consistency.

Review

Deploy flexible review and approval processes with logic branching, checklists, integrated periodic review schedules, and change requests.

Manage

Manage documents from cradle to grave in a powerful relational database structure, with extensive and secure document version control, and global change capabilities.

Train

Automatically output procedure content for step-by-step training. Easily add graphics, videos, and quiz questions for scheduled or just-in-time training.

Report

Utilize extensive reporting and notification capabilities that ensure audit readiness. Easily subscribe to customizable reports.

View

Access procedure content in any format, on any device. Choose from functional formats like training, checklists, and performance evaluations.

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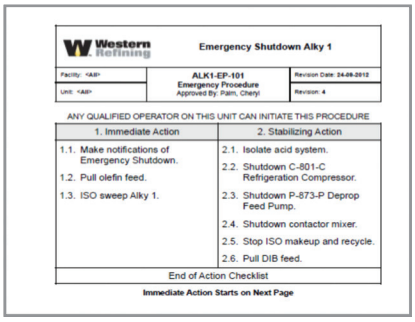
Sample SmartProcedure Outputs

Making Procedures Better. Any format. Any Device.

ATR's powerful FlexView technology enables procedure content to be output to any format, on any device. With global change functionality, instantly transform thousands of procedures.

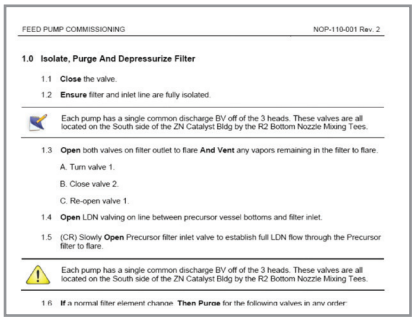

Western Refining — Emergency Shutdown Alky 1

Facility: <All> | ALK1-EP-101 Emergency Procedure | Revision Date: 24-08-2012
Unit: <All> | Approved By: Palm, Cheryl | Revision: 4

ANY QUALIFIED OPERATOR ON THIS UNIT CAN INITIATE THIS PROCEDURE

1. Immediate Action	2. Stabilizing Action
1.1. Make notifications of Emergency Shutdown.	2.1. Isolate acid system.
1.2. Pull olefin feed.	2.2. Shutdown C-801-C Refrigeration Compressor.
1.3. ISO sweep Alky 1.	2.3. Shutdown P-873-P Deprop Feed Pump.
	2.4. Shutdown contactor mixer.
	2.5. Stop ISO makeup and recycle.
	2.6. Pull DIB feed.
End of Action Checklist	

Immediate Action Starts on Next Page


FEED PUMP COMMISSIONING — NOP-110-001 Rev. 2

1.0 Isolate, Purge And Depressurize Filter

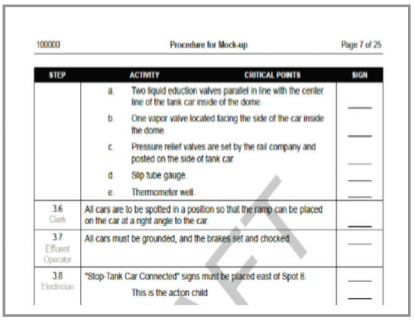
1.1 **Close** the valve.
1.2 **Ensure** filter and inlet line are fully isolated.

Each pump has a single common discharge BV off of the 3 heads. These valves are all located on the South side of the ZN Catalyst Bldg by the R2 Bottom Nozzle Mixing Tees.

1.3 **Open** both valves on filter outlet to flare **And Vent** any vapors remaining in the filter to flare.
A. Turn valve 1.
B. Close valve 2.
C. Re-open valve 1.
1.4 **Open** LDN valving on line between precursor vessel bottoms and filter inlet.
1.5 (CR) Slowly **Open** Precursor filter inlet valve to establish full LDN flow through the Precursor filter to flare.

Each pump has a single common discharge BV off of the 3 heads. These valves are all located on the South side of the ZN Catalyst Bldg by the R2 Bottom Nozzle Mixing Tees.

1.6 **If** a normal filter element change **Then Purge** for the following valves in any order:


100000 — Procedure for Mock-up — Page 7 of 25

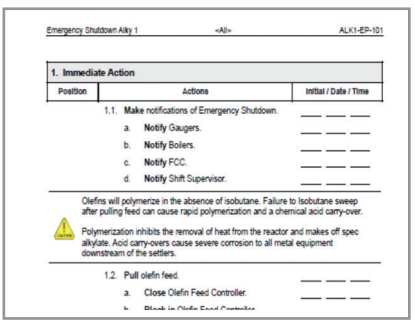
STEP	ACTIVITY	CRITICAL POINTS	SIGN
	a. Two liquid eduction valves parallel in line with the center line of the tank car inside of the dome.		
	b. One vapor valve located facing the side of the car inside the dome.		
	c. Pressure relief valves are set by the rail company and posted on the side of tank car		
	d. Slip tube gauge		
	e. Thermometer well.		
3.6 Clerk	All cars are to be spotted in a position so that the ramp can be placed on the car at a right angle to the car.		
3.7 Effluent Operator	All cars must be grounded, and the brakes set and chocked.		
3.8 Electrician	"Stop-Tank Car Connected" signs must be placed east of Spot 8. This is the action child		

INSTRUCTIVO PARA EL MANTENIMIENTO PREVENTIVO Y AJUSTE EN LA ... — ECO-10012 Rev. 0

PLAN 2 Verifique el nivel real | PELIGROS (Quién, Tipo, RAM) | Consecuencias

Figura 4. Plug de conexión infrarroja

smart procedures


Emergency Shutdown Alky 1 — <All> — ALK1-EP-101

1. Immediate Action

Position	Actions	Initial / Date / Time
	1.1. Make notifications of Emergency Shutdown.	
	a. Notify Gaugers.	
	b. Notify Boilers.	
	c. Notify FCC.	
	d. Notify Shift Supervisor.	

Olefins will polymerize in the absence of isobutane. Failure to Isobutane sweep after pulling feed can cause rapid polymerization and a chemical acid carry-over.

Polymerization inhibits the removal of heat from the reactor and makes off spec alkylate. Acid carry-overs cause severe corrosion to all metal equipment downstream of the settlers.

1.2. Pull olefin feed.
a. Close Olefin Feed Controller.

Mobility

Training

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Value and Justification

Operational mistakes can be costly, fatal, and potentially catastrophic. Combining the best of technology, human factors, and procedure writer tools, SmartProcedures streamlines procedure lifecycle management, helps you produce higher quality procedures, and substantially reduces costs.

Eliminates Formatting

Eliminate formatting altogether. Output content to any format, any device.

Integrated Streamlined Workflow

Utilize flexible workflow review and approvals, redlining and tracking of comments, and automated notifications.

Global Changes

Change hundreds or thousands of documents automatically without human intervention, with automatic revision and archiving.

Lower Audit/Legal Costs

Track procedure edits, leverage extensive reporting and logging, and apply multiple layers of security and control.

Automated Training

Output to an interactive user-friendly training format. Include graphics, video, and step-by-step recorded walkthroughs.

Greater Usability and Efficiencies

Do the job right — make high quality product with less downtime and lower operational and safety risks.

Operator Friendly Accessibility

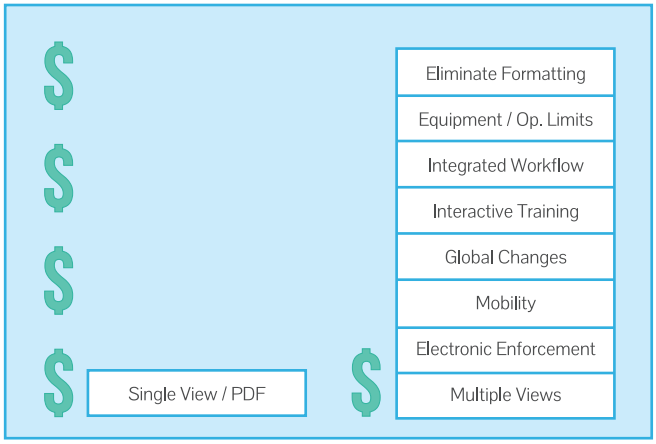
Manage documents from cradle to grave with extensive and secure document version control.

Document Mobility

Output content to mobile devices in mobile-friendly formats, including interactive checklists.

Conventional MS Word procedures costs more and gives you far less value.

SmartProcedures = Lower Costs + Higher Value



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Procedure Program Optimization

What We Do...

While each site and company may have different standards, requirements and driving forces, our implementations generally follow these major steps:

1. Analysis

We review and compare your current program and culture to industry regulations, company standards, and best practices. We determine gaps and recommendations for improvement.

2. Governance Documentation

We work with your management team to upgrade procedure program governance, including use and adherence, management of change, writing standards and overall management requirements.

3. Project Kick-Off

We work with stakeholders to codify policies, procedure guidelines, and workflows, while establishing roles and responsibilities, goals, and timelines.

4. Configuration Engineering

Our team configures SmartProcedures to your requirements, including defining procedure type properties, workflows, specialized reports and procedure analysis rules.

5. Print View Development

Our engineers create electronic print views and templates to meet your exacting standards.

6. MS Word Conversion

Our conversion team converts your documents (MS Word, other formats) to SmartProcedures using the conversion guidelines established during kick-off.

7. Technical Rewriting

Through our talented team of technical writers, we can upgrade, standardize and employ best practices to ensure procedures are clear, concise and consistent.

8. Training

We provide your team with training about procedure editing, best practices, workflow, importing, and system administration through on-site training classes.

9. Deployment

We work with your team to ensure successful roll out to end users, as well as to your writers and management team.

10. Continuous Improvement

We look for opportunities to share lessons learned, best practices, and findings from the Advanced Procedure Research project to ensure your long-term success.

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Advanced Procedure Research Consortium

Combining leading human factors, technology, and process practices, this groundbreaking study initiated by ATR and conducted by Texas A&M University focuses on a goal of zero incidents by improving the quality and usability of procedures.

Consortium Partners

atr · Chevron · ExxonMobil · NASA · NOVA Chemicals

Texas A&M ergonomics Center
Applied & Basic Research • Commercialization • Design

MARY KAY O'CONNOR PROCESS SAFETY CENTER
TEXAS A&M ENGINEERING EXPERIMENT STATION

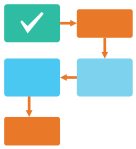
Human Factors

- Human diversity
- Stress
- Distractions
- Memory
- Cognitive bias
- Target fixation
- Reading level
- Communication

Technology

- Scalability
- Device independence
- Multimedia
- Interactivity
- Global changes
- Smarter procedures

Processes



- Lifecycle management
- Use and adherence
- Executive leadership
- Writing standards
- Review and approval
- Continuous improvement

Program Deliverables

- Identification of current & future best practices across multiple industries
- Optimum performance templates for computer, paper and mobility devices
- Procedure writer's guide
- Research-based recommendations on procedure usability
- Enhanced technologies built into the SmartProcedures platform
- Procedure audit guidelines based on human factor requirements
- Influence upon regulatory standards for safety and operational excellence

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SmartProcedures Benefits

ATR's SmartProcedures provides substantial benefits to your operators, procedure writers, and company. No wonder -- it is the world's leading procedure lifecycle management system.

Procedure Lifecycle Management

Manage documents from cradle to grave with extensive and secure document version control.

Document Mobility

Output content to mobile devices in mobile-friendly formats, including interactive checklists.

Global Change Capabilities

Change hundreds or thousands of documents automatically without human intervention, with automatic revision and archiving.

Periodic Procedure Review

Use automatic notifications and periodic review schedules based on document type, or set for individual documents.

Interactive Training

Output to an interactive user-friendly training format. Include graphics, video, and step-by-step recorded walkthroughs.

Locked Down Templates

Lock down document structure with powerful template design. Include boiler-plate language, restrict the number of levels of sub-steps, and cascade changes to member procedures.

Any Format, Any Device-FlexViews

Eliminate formatting altogether. Output content to any format, any device.

Review and Approval Workflow

Utilize flexible workflow review and approvals, redlining and tracking of comments, and automated notifications.

Reports and Notifications

Access extensive reports for audits, periodic review, and procedure access. Reports can be subscribed to and automatically emailed. Use notification reminders for workflow assignments and writing tasks.

Electronic Content Analyzer

Use industry standard or customized rules. Analyze documents for violations, reading level, readability score, and an extensive risk-ranked rule set.

Import MS Word Documents

Upgrade Word documents to SmartProcedures. A powerful import utility easily converts from HTML/Word formats.

Secure Document Accessibility

Enjoy easy search and find capabilities based on a powerful search engine. Search by location, title, document ID, author, key words, and more.

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