PAPA SAFETY COMMITTEE





PA Asphalt Pavement Association

John R. Kibblehouse Jr. Safety Committee Chairman The H & K Group

PAPA SAFETY COMMITTEE CHARTER

- <u>PURPOSE</u>: This Charter establishes the PAPA Safety Committee and defines its Establishment, Vision, Mission, Focus Areas, Membership, and Meetings.
- VISION: The PAPA Safety Committee will be the Association's focal point to address pertinent safety focus areas to reduce or eliminate work place injuries and/or deaths.
- MISSION: The mission of the PAPA Safety Committee is to identify, prioritize, and address issues, problems, concerns and opportunities to enhance the effectiveness of member company's safety programs.



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PAPA SAFETY COMMITTEE FOCUS AREAS

- **FOCUS AREAS**: The major focus areas of the PAPA Safety Committee are;
 - 1) Regulation
 - 2) Education & Training
 - 3) Enforcement Issues
 - 4) Technology
 - 5) Safety Culture
 - 6) Lessons Learned



PAPA SAFETY COMMITTEE MEMBERS

MEMBER	COMPANY			
Dan Bauman	Glenn O. Hawbaker			
Scott Bergman, Secretary	Axeon Specialty Products			
Steven Durbin	Lane Construction Company			
Billy Godfrey	Blakeslee Asphalt Supply LLC			
Steven Kammeyer	Marathon Petroleum Company			
John R Kibblehouse, Jr., Chairman	The H & K Group			
Mark Kurcis	New Enterprise Stone and Lime Company			
Tom Loughery	Glasgow Inc			
Gregory Lutz	J.D. Eckman Inc.			
Matt Mileski	HRI Inc.			
Michael Minkler	CMS Engineering			
Joe Knouse	The H & K Group			
Neil Seidenstricker	The Stewart Companies			
Doug Sturtevant, Vice Chairman	Allan Myers			
Brett Thorius	Old Castle Materials			
Gary Hoffman, Charles Goodhart, Ex. Officio	PAPA			



PAPA SAFETY COMMITTEE PRESENTATION

PLANT – MATERIALS SESSION AGENDA

- 1) Confined Space & New OSHA Regs Matt Mileski
- 2) Arc Flash Dan Bauman
- 3) Structural Integrity Dan Bauman
- 4) Stockpile Safety Dan Bauman
- 5) Silo Loadout Dan Bauman



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Confined Spaces





confined space?

What is a confined space?

1) You can fit inside 2) Harder than normal to enter or exit 3) Not intended for continuous occupancy



Not a confined space

Exterior stairs, normally covered with grating?





ls it

dangerous?





No Danger – no problem - <u>No Permit</u>



Remove danger and <u>Reclassify</u> as non-permit



Constant ventilation keeps it safe



<u>Permit Entry</u> – we control the danger



Dangerous – <u>Do not enter</u> – post sign



No Danger – no problem - No Permit

Cold Feed Bins



Remove danger and **Reclassify** as non-permit





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Remove danger and **Reclassify** as non-permit

Must document that danger is removed

Remove danger and **Reclassify** as non-permit



Remove danger and <u>Reclassify</u> as non-permit







Constant ventilation keeps it safe

Document

- Entrant must be trained

100% gas detector



Permit Entry we control the danger



Permit **Retrieval line** Attendant **Rescue service** Cancellation

Permit Entry - we control the danger



CONI Appendix B+ Co	FINED SPACES: infined Space Entry			NO. 78	/			WIVE .	
		Permit	EFFECTIVE DATE PAGE 973:00 D.M.						
			August I	4, 2015	11	of 1			/
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Authorized Att	tendants: J.	Richey	, m.	Coomi	s, c	,) el	reette	/	
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4 Permit Entry – we control the danger





Asphalt Tanks



H2S venting off of asphalt

tank

Communication



Protecting Construction Workers in Confined Spaces: Small Entity Compliance Guide

www.osha.gov



Do the Simplest Safe thing

And document what you did

Walking Working Surfaces

OSHA[®] FactSheet

OSHA's Final Rule to Update, Align, and Provide Greater Flexibility in its General Industry Walking-Working Surfaces and Fall Protection Standards





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Arc Flash

- Why is it a concern
- Arc Hazards and the survey
- Labeling
- Training and PPE

Arc Flash / Blast

- Concentrated energy explodes outward
- High intensity flash
- Temperatures can reach 35,000 deg. F
- Pressure wave can reach 200lbs/sq. inch
- Vaporize conductors and explode particles like buckshot.



Arc Flash Effects

- Severe burns
- Broken bones
- Vision damage
- Hearing loss
- Brain/internal injuries
- Punctures and lacerations
- Death



Arc Hazard Survey

- Single line diagram
- Incident energy levels
- Current limiting device coordination
- Calculates a hazard risk category and approach boundaries
- Recommendations to reduce high hazard risk categories



REDUCE THE HAZARDS

- Change fuses
- Develop a maintenance program
- Adjust circuit breakers
- Install additional limiters



ARC RATINGS

Hazard / Risk	Incident Energy (cal/cm ²)			
Category				
0-/-1	0 - 4 (1.2)			
2	4 - 8			
3	8 - 25			
4	25 - 40			
Dangerous	Over 40			

ARC FLASH LABEL



Arc Flash and Shock Hazard

Appropriate PPE Required

- 9 inch Flash Hazard Boundary
- 0.40 cal/cm^2 Flash Hazard at 18 inches
- Category 0 Untreated Cotton
- 480 VAC Shock Hazard when cover is removed
- 00 Glove Class
- 42 inch Limited Approach (Fixed Circuit)
- 12 inch Restricted Approach
- 1 inch Prohibited Approach

Bus: EDDY CURRENT PANEL Prot: PD-EDDY

ARC FLASH LABEL

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NO SAFE PPE EXISTS

ENERGIZED WORK PROHIBITED

- 156 inch Flash Hazard Boundary
 - cal/cm^2 Flash Hazard at 18 inches

Dangerous! NO SAFE PPE EXISTS

- 480 VAC Shock Hazard when cover is removed
- 00 Glove Class

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- 42 inch Limited Approach (Fixed Circuit)
- 12 inch Restricted Approach
- 1 inch Prohibited Approach

Bus: FERROUS BALER MCC MAIN BKR Prot: F-UTILI7

PPE – HAZARD RISK CATAGORY



Category 1



То





ARC-RATED FR CLOTHING & PPE

- Layering
 - Outer layers must be flame resistant
 - Under layers must be non-melting
- Fit Clothing shall fit properly (loose), w/ least interference
- Coverage Clothing must cover potentially exposed areas
 - (wrist, neck)
- Care & Maintenance
 - Inspect before use
 - Launder according to mfg.'s instructions





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Changes to Boundary Requirements

- "Prohibited Approach Boundary" removed
- · Conductive articles of jewelry and clothing must be removed
- · Working space shall not be used for storage
- · Barricades shall not be placed closer than the arc flash boundary when it is greater than the limited approach boundary
- · Insulated tools must be used when working inside the restricted approach boundary

NFPA 70E Approach Boundaries



Arc Flash Hazard Training

- Labeling system
 - Hazard Recognition, Available energy
- PPE Requirements
 - Glove selection and testing
 - Shock protection
 - Arc flash rated clothing

This has nothing to do with work or repairs to be done!

Glove Labeling Chart

Choose the right glove by voltage rating

ASTM Labeling Chart

SALISBURY'S Natural Rubber and SALCOR® Rubber Electrical Protective Equipment

Class Color	Proof Test Voltage AC / DC	Max. Use Voltage AC / DC	Rubber Molded Products Label	Insulating Rubber Glove Label	Insulating Rubber Dipped Sleeve Label		ASTM Specification Reference
00						D120	Rubber Insulating Gloves
Beige	2,500 / 10,000	500 / 750		10 AND ALISBURY BID		D178	Rubber Insulating Matting
				ANZ ON YOUR SERVICE		D1048	Rubber Insulating Blankets
						D1049	Rubber Insulating Covers
			GALISBURY	CALICOLONY	A SAUSBURY	D1050	Rubber Insulating Line Hose
0	5,000 / 20,000	1,000 / 1,500	CLASS 0 CLASS 0 CASE 1	10 Register No. 1 1000 ACC	ASTN PIGST CLASS & TYPET	D1051	Rubber Insulating Sleeves
Red					ENSOREA = CEO120	F478	In-Service Care of Line Hose & Covers
			LISBURN			F479	In-Service Care of Insulating
1	10,000 / 40,000	7,500 / 11,250	NUL USE	10 AND ANTA MORE DIR		F 408	Blankets
White		,,	CLASS 1	10 MAR INE VOLT 7509Y AC		F490	In-Service Care of Gloves & Sleeves
						F696	Leather Protectors for Insulating
			ALISBURY				Gloves
2 Yellow	20,000 / 50,000	17,000/25,500				F1236	Inspection Guide for Rubber Products
			TYPE			F1742	PVC Insulating Sheeting
			ALL BURN			F2320	Rubber Insulating Sheeting
3 Green	30,000 / 60,000	26,500/39,750				Туре I-	Designates natural rubber.
oreen			TYPE 1		ENGINES A COULSO	Type II-	Designates SALCOR®
							UV and ozone resistant rubber.
4 Orange	40,000 / 70,000	36,000 / 54,000	Salise and a class a c	10 SALISBURY MAR JE WOLF TERODY JC	SALISBURY ASTIN DIBIS CLISS 4 TIPE I MAN IGE VOLT REDAV AC ENGOBS 4	Seming	ALISBURY Induitiv stendards area 855.
insulating Gla label to meet (oves and Sleeves must have appropriate ASTM Specifica	a color coded itions.	REQUEST T	HE BEST WITH SALISBUR	Pert #ASIN/CHART	toll free toll free whse	e ph. 877.406.4501 e fax 866.824.4922 alisbury.com

7.5811205

Voltage-Rated Gloves



- First line of defense
- Leather protectors must be worn over the rubber gloves
- Gloves must be tested
 - Before first issue and every 6 months
 - If tested, but not issued for service, glove may not be put into service unless tested within previous 12 months.
- Checked before use
 - Roll-up test
 - Inflator test



STRUCTUAL INTEGRITY

MSHA Alert



PREVENTATIVE MEASURES

- Thickness Measurements
 - Bins
 - Line or Patch
 - Floors
 - How Thick Is The Hardened Layer
- Silo's
 - Cones
 - Measure Above the Cone
 - Any Ceramics or Overlaps





PREVENTATIVE MEASURES

- Structure
 - Visual Inspection
 - House keeping
 - Proper Repairs





STRUCTUAL INTEGRETY

- Asphalt Tanks
 - NAPA Guide (IS-137) Guidance for the Inspection of Above Ground Storage Tanks Containing Asphalt Cement at Asphalt Pavement Production Facilities
 - API 653, Tank Inspection, Repair, Alteration and Reconstruction.

LAB SAFETY

- Stock Piles and Sampling
- Asphalt Sampling
- Lab Activities



https://www.youtube.com/watch?v=wKiezhYSp1s

STOCKPILE AND SAMPLING

- Communications (Plant and Lab)
- Blind spots for the equipment onsite
- Maintain eye contact
- Understand the equipment blind spots
- Always face vehicle routes when doing work task adjacent to a haul road



STOCKPILE AND SAMPLING

- Stockpile
 - Overhanging material
 - Stay clear of draw points above surge tunnels
 - Prohibit people from walking on a surge pile without taking safety measures
 - Never place yourself between the equipment and the stockpile



ASPHALT SAMPLING

- Plant
 - Mobile equipment
 - Sampling racks
 - Tools for sampling
 - Carrying or lowering samples
 - Housekeeping



Field

- Live or dead lane
- Mobile equipment in and out of the work zone.

LAB ACTIVITIES

- Chemicals SDS sheets
- Temperature
- Work area layout (Design & Production)
- Housekeeping



Air monitoring for silica particulate

SILO LOAD OUT

Hood Shots

- Auto Load out / Manual Buttons
 - Acknowledge the truck is
 - Under correct silo
 - Proper location for each drop
 - One click and loading begins
 - Lights or signs to communicate with the drivers







SILO LOAD OUT

Other Approaches

- Photo or Laser Eyes for Truck Position
- Silo Selector Switch- Only (1) Silo Will Open
- Timers for No-Flow or Scale Errors
- Emergency Stops



SILO LOAD OUT

- Equipment Design / Automation
 - Batcher Operation Time or Tons
 - Completely Empty?
 - Batch when Silo Gates are Open?
 - Equipment Design for Loss of Power or Air
 - Batchers Fail Open or Fail Closed
 - Silo Gates Fail Open or Closed
 - Emergency Stop



PAPA SAFETY COMMITTEE

Thank you for your attention & questions!



Please contact any committee member should you wish to join this very important committee!



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