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Combustible Dust Hazard Assessment Compliance Checklist

Operational Scope: This checklist outlines the mandatory inspection criteria for identifying, evaluating, and mitigating combustible dust hazards within oil, gas, and energy facilities. Compliance is required to prevent catastrophic dust deflagration, fire events, and ensure adherence to federal safety mandates.

MANDATORY PPE:	Flame-Resistant (FR) Coveralls (NFPA 2112), Anti-Static Safety Boots (ASTM F2413), Impact-Resistant Safety Glasses (ANSI Z87.1), Half-Mask Respirator with P100 Filters, Conductive Hard Hat (ANSI Z89.1), Leather Utility Gloves
PREREQUISITES:	Verify hot work permits are suspended within 50 feet of dust collection zones. | Ensure continuous explosion venting pathways are clear of temporary obstructions. | Confirm testing personnel have completed NFPA-aligned combustible dust awareness training.

DUST COLLECTION & VENTILATION SYSTEMS

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
1	**Dust Collector Enclosures**	Enclosures and ductwork are free from structural corrosion, localized dents, or air leaks that could allow fugitive dust escape.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
2	**Explosion Venting & Isolation**	Explosion relief vents, rupture disks, and active isolation valves are unobstructed, unpainted, and verified within manufacturer replacement intervals.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
3	**Filter Bags and Cartridges**	Filter elements show no signs of tears, heavy blinding, or excessive pressure differential across the tube sheet.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A
4	**Differential Pressure Gauges**	Magnehelic or digital differential pressure gauges are operational and readings fall within engineering design parameters.	**Standard**	[ ] PASS [ ] FAIL [ ] N/A

HOUSEKEEPING & SURFACE ACCUMULATION

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
5	**Elevated Structural Beams & Pipes**	Dust accumulation on horizontal surfaces does not exceed the threshold limit of 1/32 inch (0.8 mm) or 5% of the surface area.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
6	**Cleaning Equipment (Vacuums)**	Only intrinsically safe or NFPA-approved Class II, Division 1 explosion-proof vacuum systems are utilized for dust removal.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
7	**Prohibition of Compressed Air**	No unapproved compressed air blow-down hoses are present or utilized in areas with potential combustible dust suspension hazards.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A

IGNITION SOURCE CONTROL & ELECTRICAL SAFETY

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
8	**Electrical Classification (Class II)**	All lighting, motors, and electrical panels within the dust hazard zone maintain proper NEMA/NEC rating for Class II, Division 1 or 2 environments.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
9	**Bonding and Grounding**	All ductwork, conveyors, and transfer chutes exhibit continuous electrical continuity with resistance to ground under 10 ohms.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A
10	**Tramp Metal Separators**	Magnetic separators and spark detection systems ahead of mills and grinders are fully operational and functionally tested.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A

Certified Inspector / Lead Operator Signature: _____	**Date / Time:** _____	**Badge / Cert #:** _____
Site Safety Supervisor / Operations Manager Sign-off: _____	**Review Date:** _____	**Audit Status:** [ ] Approved [ ] Rectify

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