

BPSH HSE Training Newsletter

May x, 2002

PR-2 Hot Work – Electrical Classification of Cell Phones, Pagers, Handheld Computers and Battery-Powered Equipment


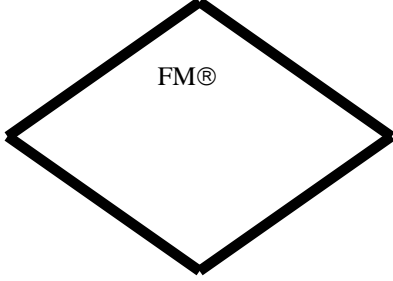
Many areas within the Texas City Site are classified as hazardous locations such as: process units, tank farms, docks, and other areas that could potentially contain combustible gases. Most process areas are rated Class I, Division II (flammable vapors are not normally present); some process areas are rated Class I, Division I (flammable vapors exist during normal operations). Use of battery-powered equipment in these areas depends on whether it carries the appropriate electrical classification. Many different brands of pagers, cell phones, and flashlights carry the proper electrical classification; and thus do not require a hot work permit for use in these locations. Personal pagers (pagers not issued for work purposes), handheld computers (e.g., Palm Pilots), and cellular telephones must be left in the control room or in vehicles. BP pagers and cellular phones must be certified for hazardous duty (intrinsically safe) for use in these locations. This certification ensures the electrical equipment has met industry standards and is not capable of igniting a combustible gas.

Many of the battery-powered test instruments (e.g., vibration pens, I/E multimeters, etc.) have not been tested for electrical classification. The Process Safety Committee Electrical Subcommittee has developed a list of equipment acceptable for use without a hot work permit. The devices are grouped into one of four categories:

Inherently Safe / Authorized	These devices either pose no electrical threat, or based upon a functional review by the Electrical Subcommittee and past experience, these devices may be used without a hot work permit. Using these devices does not require a hot work permit or a hot work gas test.
Certification Required	These devices may not be used in an area covered by the hot work policy unless they have the proper electrical classification.
Hot Work Permit Required	These devices or functions have been evaluated. Using these devices or performing these functions requires a hot work permit.
Unknown/Hot Work Permit Required	These devices or functions have not been evaluated. Using these devices or performing these functions requires a hot work permit.
Gas Test Required	These devices or functions have been evaluated. Using these devices or performing these functions requires only a gas test.

Attached is a specific list of equipment that falls in the above categories. The list can also be found on the HSE Forms page at <http://txchse.bpweb.bp.com/web1/Forms/hseforms.htm>.

Electrical equipment used in hazardous atmospheres must be labeled with one of the following symbols and hazardous location certification:

		Intrinsically Safe for Use in Hazardous Locations Class I, Group A,B, C, D Class II, Group F
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If electrical equipment does not have the above label, then a hot work permit is required. Before entering a unit or other potentially hazardous location, check your equipment for the proper certification. **The equipment cannot be taken into the unit, turned on or off, if it is not certified.**

Hot Work -- Electrically Classified Equipment

Inherently Safe / Authorized

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| <ul style="list-style-type: none"> • Glow Stick • Watch Battery Powered Solid State Equipment • Rosemount Smart Field Communicator (SFC) • Calibration Of Smart Transmitters With SFC's • UT Meters • Solid State Vibration Equipment Such As Vibration Pen, Microlog, Beta Trap • Radiation Meter • PRIDE Data Collectors | <ul style="list-style-type: none"> • Phase Rotation Meter (with Lights For Indicator), When Attached/Detached To A De-Energized Circuit • Solid State Calculators • Honeywell SFC • Tick Tracer • IR Scanners • Sound Gun • IMS Laser Pointer • |
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Certification Required

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| <ul style="list-style-type: none"> • Flashlights • Pagers • Electrically Operated Instruments, Switches, Alarms, Solenoids, Relays, And Transmitters | <ul style="list-style-type: none"> • Cellular Telephones • Radios |
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Gas Test Required

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| <ul style="list-style-type: none"> • UT Scopes (Shearwave) • Devices With CRT's • Flash Photography • Phase Rotation Meter (Motor Driven Indicator Type) • Glow Stick Tester (used outdoors) • Self Contained Battery Powered Solid State Handheld Test Equipment Such As Frequency And Instrument Calibrators • Texas Nuclear Analyzers • Meggar (when used outdoors) • IR Camera | <ul style="list-style-type: none"> • Digital Cameras (with or without flash; and used less than 1 hour) • Non Solid State Vibration Equipment Such As Digital Data Recorder • DLRO (used outdoors) • Phase Rotation Meter (With Lights For Indicator) When Attached/Detached To An Energized Circuit • Loveland 2020 Calibrator • Work In Instrument Junction Boxes • Digital Multimeter • Lap Top Computers |
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Hot Work Permit Required

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| <ul style="list-style-type: none"> • Hipot (used outdoors) • Stress Relieving Equipment • Thumper • Arc Welders • Digital Cameras (with or without flash; and used 1 hour or greater) | <ul style="list-style-type: none"> • Doble Test Set • CT Tester (used outdoors) • Oscilloscope • Ground Fault Circuit Interrupters (GFCI's) • Other Electrically Powered Hand Tools (AC or DC) |
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