	SONARtrac[®] Technical Note	
	TN0005	Date: 8Aug07
	Subject: Process Pipe Grounding to Prevent Electrical Problems From Lightning	Revision 02
		Page 1 of 2

Problem:

Lightning strikes on process pipes and equipment can cause electrical faults in process monitoring systems.

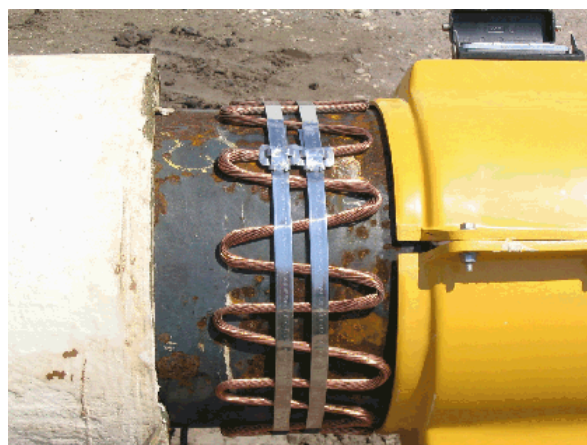
Suggested Solution:

One customer located in Florida's "Lightning Alley" experienced electrical faults throughout their process instrumentation (including SONARtrac flow meter) as a result of lightning strikes.

In order to minimize recurrences, he installed a ground system around the SONARtrac meters. The ground straps consisted of about 15 – 20 feet of #1 stranded copper cable stripped of its insulation, bent into a series of "S" shapes and then secured to the pipe using steel bands. The ground straps were secured to individual ground rods driven into the ground that were reported to be ~12 feet long. This is illustrated in the figures below.



Sensor Heads With Insulation Removed and Ground Straps Installed




Ground Strap Installed on Pipe

Contact CiDRA Corporate Services Technical Support if additional information is required.

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	TN0005	Date: 8Aug07
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		Page 2 of 2

Revision History

Rev	Date	Changed By	Approved By	Change Description
01	8/22/07	B. Markoja	M. Sapack	Initial Release
02	7/29/08	V. Rojas-Haines	V. Rojas-Haines	Update Figures and name