Introduction

The accidental melting of a radioactive source is a situation no steel / scrap metal facility wants to face. The costs of decontamination clean up, along with lost production revenues during plant shut down, can be catastrophic, not to mention the negative impact on a facilities' public and environmental relations within their community.

**Top ten reasons for radiation protection**

1. Clean-up costs/rejected shipment costs
2. Loss of production - revenue
3. Disposal problems – costs
4. Loss of valued customers – liability
5. Employee safety – health risks
6. Loss of “quality” supplier/manufacturer
7. Competitive edge - weakened
8. Environmental problems
9. ISO requirements/certification
10. Government and regulatory problems

Preventing the problem of radioactive contamination within a steel / scrap metal facility is the corporate mission of RadComm Systems. With a comprehensive product line of radiation detection systems and over fourteen years of proven field experience, RadComm is the supplier of choice for today’s metal industry.
Examine the potential risks and costs of radioactive contamination

<table>
<thead>
<tr>
<th>Risks to the Steel Mill and Foundry:</th>
<th>Risks to the Scrap Metal Recycler:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of clean-up +$10,000,000.00US</strong></td>
<td><strong>Rejected, returned or detained shipments</strong></td>
</tr>
<tr>
<td>• Decontamination – clean-up costs</td>
<td>• Cost of returned freight</td>
</tr>
<tr>
<td>• Storage and disposal problems</td>
<td>• Delays</td>
</tr>
<tr>
<td>• Lost production revenues during plant shut down</td>
<td>• Disposal fees of contaminated material</td>
</tr>
<tr>
<td><strong>Other issues</strong></td>
<td>• Reputation – RE: Quality of scrap supplied</td>
</tr>
<tr>
<td>• Negative reactions with customers</td>
<td><strong>Accidentally shredding a radioactive source</strong></td>
</tr>
<tr>
<td>• Competitors advantage</td>
<td>• Employee health exposure, public concerns - liability</td>
</tr>
<tr>
<td>• Employee health exposure – safety</td>
<td>• Equipment contamination and clean-up costs</td>
</tr>
<tr>
<td>• Environmental concerns</td>
<td>• Environmental costs</td>
</tr>
<tr>
<td>• Government regulatory issues</td>
<td>• Government inspectors take charge in scrap yards</td>
</tr>
<tr>
<td>• Insurance costs</td>
<td>• Insurance costs</td>
</tr>
<tr>
<td><strong>Loss of valued customers</strong></td>
<td><strong>Loss of valued customers</strong></td>
</tr>
</tbody>
</table>

The RadComm difference

Noted for proven, comprehensive product line product line, reliable and responsive service and dedicated personnel, RadComm is the worldwide leader in the design, manufacturing and service of highly sensitive radiation detection systems.

Flexibility and the ability to customize solutions for specific customer applications is what makes RadComm a unique supplier to the scrap metal recycling and steel industries worldwide.

Overview

The RC4000 Series Radiation Detection System (RDS) is the most sophisticated engineering design available from RadComm. The RC4000 vehicle monitoring systems have been specifically designed to detect radioactive materials contained in moving vehicles loaded with scrap material. The RC4000 RDS will prevent radioactive contamination of your scrap yard, equipment, manufacturing plant, product and personnel.

The system is modular, flexible and customizable, offering multiple detector configurations to meet site-specific applications.

A typical system configuration consists of:

- 2/3/4/6/ Detectors, with optical sensors and cabling…
- Computer, power junction box, printer, keyboard and mouse…
- Operator touch screen monitor
Unique Features

The RC4000 has a number of key features only available from RadComm that make this vehicle monitoring system an industry leader and unique in its field.

Key Features:

1. Superior detector technology and coverage
2. Superior overall radiation detection capability
3. User friendly software and easy to understand operation
4. Full networking and remote access capability
5. Responsive service, technical support and maintenance
6. Excellent customer references
7. Committed to the steel and scrap industries long term

Features and benefits that make the difference

Superior detector technology and coverage = 100% vehicle load scan

- Better detector coverage, vertical top and bottom of vehicle well covered and good width providing additional dwell time:

<table>
<thead>
<tr>
<th>Detector</th>
<th>RC4138</th>
<th>RC4069</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (2 Detector)</td>
<td>8432 cu. in. / 138L</td>
<td>4,216 cu. in. / 69L</td>
</tr>
<tr>
<td>Height</td>
<td>68 in. (82in Outside)</td>
<td>68 in. (89in Outside)</td>
</tr>
<tr>
<td></td>
<td>173cm (208cm)</td>
<td>89cm (225cm)</td>
</tr>
<tr>
<td>Width</td>
<td>31 in. (34in Outside)</td>
<td>15.5 in. (18in Outside)</td>
</tr>
<tr>
<td></td>
<td>79cm (86cm)</td>
<td>40cm (46cm)</td>
</tr>
<tr>
<td>Surface area</td>
<td>4,216 sq. in.</td>
<td>2,108 sq. in.</td>
</tr>
<tr>
<td>(2 Detector)</td>
<td>13,840 cm³</td>
<td>6,920cm³</td>
</tr>
</tbody>
</table>

- RadComm uses low noise designed hardware, premium quality PVT, lab quality components, ruggedized component design for extra reliability and long life.
- RC4138 model uses 2 PMT’s per scintillator, providing coincidence signal processing and increased sensitivity.
- Wireless detector connectivity is available as an option.

Superior overall radiation detection capability = Higher sensitivity, fewer false alarms

- RadComm uses a 4 stage process which includes: Low noise design, advance signal discrimination, pulse discrimination techniques and characterization algorithms. This results in excellent background management and extremely low alarm thresholds, independent of scrap density and loading, giving higher sensitivity to radioactive material, with fewer false alarms.
- RC4000 series software can be “fine-tuned” for each specific application, providing increased flexibility and optimized to provide maximum sensitivity with a minimum of false alarms. Requires experienced personnel to set and adjust thresholds.
- RadComm systems can be configured to eliminate nuisance alarms. The system has the ability to recognize and ignore persistent false-positive alarms.
- RC4000 has been certified by various Radiological Institutes in; China, South Africa and The Netherlands. Evaluated by ELG and soon to be Nucor. Proven by North American Stainless and over 400 other successful customer installations.
**User friendly software and easy operation = Excellent operator acceptance and usage**

- Touch screen navigation system, in real time, with windows based color graphics that are easy to understand and follow, each detector is clearly shown, ideal for 4-6 detector systems.
- User can add specific "comments" in data file on any vehicle scan log, particularly useful on alarming vehicles.
- Ability to send an e-mail message to supervisor from touch screen.
- 3 alarm levels to provide an extra measure of safety.
- All scans are filed in a categorized data-logging file, including all graphic and text information. System can easily be customized as required.
- Provides multi-language user selectable capability, including Asian languages.
- Uses pre-set non-radioactive source test to ensure the system is working properly.
- Manual scan capability that uses the detectors as a giant handheld — ideal for locating radioactive sources in high sided vehicles and pin-pointing the exact location of the source in the vehicle.
- Free software up-grades for the life of the systems.

**Networking and remote access globally = Ensures alarm procedures are followed**

- Fully networkable, both dedicated network and intranet (i.e. Ethernet), as well as wireless and modem capability.
- Full data-logging access to all scans allows supervisor to check on the operation of each system, from office/home thus providing traceability and accountability at any time or place.
- System can be configured, when it alarms, to send an e-mail to alert the Radiation Safety Officer or supervisor.
- Data and alarm log files (+30,000) include graphic and test format in full color, along with any "comments" added to the file. Ideal for alarm logging procedures and follow-up.
- Password protected, administration access and control is provided.
- New networking features will allow a supervisor to monitor, in real time, a number of systems simultaneously, automatically receive alarm notices and access alarming data files immediately.

**Responsive technical support, maintenance and service = No interruptions in work flow**

- RadComm has dedicated service technicians that work solely in the steel and scrap metals industries and have the experience of knowing how to solve various application problems.
- Initially a combination of telephone and internet connections can solve most problems and provide technical support.
- Full parts inventory readily available and parts change out is simple given RadComm's modular design. Service technicians are available to make service calls as required.
- Service technicians can also service other manufacturer’s radiation detection systems.

**Excellent references = Proven, experience, systems in successful operation worldwide**

- Over the last 14 years, RadComm has installed over 1,800 large scale radiation detection systems in 30 countries worldwide.
- The RC4000 has over 400 systems successfully operating in USA, Europe, Canada, China, Mexico, India, and Japan.
- Key customers include Nucor Steel, North American Stainless, Tube City, Sims Bros., and Schnitzer Steel in USA. In Europe Cronitmet, Rometa Westerlo, Acerec
Committed to the industry for the long term = Our long term commitment

- RadComm focuses on only one business — designing, manufacturing, and servicing radiation detection systems for the steel/metals recycling industry.
- RadComm success was due, in part, to its commitment to research and development and the implementation of new technology and new products such as the RC4000 vehicle systems and Cricket grapple mounted systems. RadComm continues to invest heavily in R&D.
- RadComm has recently invested in a new state-of-the-art facility (10,000 sq. ft. building) including design, service and manufacturing. New building opened August 2nd, 2006.

In Conclusion

RadComm is committed to the long term, the future of radiation detection for the steel industry.

In summary, RadComm processes the core competencies, experience, technology, service and people to become the future of radiation detection technology for the steel industry. Flexibility, versatility and the ability to customize radiation detection solutions for specific customer applications are what make RadComm a unique supplier to the industry.

Over the past fourteen years, RadComm has proven that it’s radiation detection systems work, with satisfied customers and successful installations worldwide. Leading edge technology, outstanding service and dedicated personnel along with a new state-of-the-art facility will catapult RadComm into the future of radiation detection, illustrating it’s commitment to becoming the prime supplier of radiation detection technology and solutions to the steel industry.