BASIC CONCEPTS INC
Justrite Safety Group

Engineered Secondary Containment Solutions

- *Industrial Coatings & Secondary Fuel Containment*
- *Secondary Oil Containment & Filtration*
- *Mobile Secondary Spill Containment*

A Growing Environmental Portfolio
Justrite's leading environmental solutions portfolio now includes Basic Concepts, Inc., C.I.Agent Solutions and Industrial Maintenance Group.

BCI
BASIC CONCEPTS INC
Justrite Safety Group

ci agent solutions®

Basic Concepts (BCI) is part of Justrite Safety Group™

For over a century, Justrite Safety Group has helped protect where the world works. Our mission is to identify workplace vulnerabilities and guide customers in creating an ecosystem of safety—so your team can work with confidence.

Justrite™
Safety Group

Start with the Essential℠

Making Confident Choices for the Environment

Clean air and clean water touch everyone worldwide. They are essential to everyday life. That's why regulations have been enacted to protect our environment. At Basic Concepts (BCI), our experts collaborate with you to understand your unique needs, helping you to select appropriate solutions or designing custom systems to meet your requirements. Our job is to help you make confident, compliant choices when it comes to secondary containment.

A Wide Range of Engineered Secondary Containment Solutions

At BCI, we protect where the world works. We offer a comprehensive range of secondary containment solutions across applications, tailored to meet your specific requirements and industry needs. The regulations surrounding environmental containment can be complex. We will guide you into compliance—and help keep you there.

Make BCI part of your Spill Prevention, Control and Countermeasure (SPCC*) Plan.

*See page 19 for a detailed description of SPCC

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Secondary Containment Solutions by Industry

Basic Concepts (BCI) offers high-quality, engineered solutions to meet the needs of nearly any application across industries.

Petroleum Storage & Refining
As a leader in the coatings and secondary containment market, we provide exclusive, innovative options to meet your fuel containment requirements. Our patented containment system (T.R.A.P.S.) and patented liner seaming system (PolySeam®) provide cost-effective methods to meet fuel containment regulations. Our patented Rigid-Lock QuickBerm® offers flexible, portable spill containment with the added benefit of drive-in, drive-out convenience for vehicles. Hydrocarbon filtration products mitigate oil contamination for SPCC compliance.

Electric Power
A variety of coating and liner options are available for the power industry. Utilizing high temperature, fast-set structural coatings, epoxies and synthetic liners, we help meet your needs for secondary fuel containment, pond liners, waterproofing and pipeline repair. We increase the life expectancy of key operating equipment such as precipitators, pumps and more. Below-ground or above-ground liners fitted with hydrocarbon filtration products help utility companies comply with EPA and SPCC requirements. Containment systems are custom-designed based on site-specific variables.

Water/Wastewater
Meeting the needs of the water/wastewater industry is our priority. We supply cost-effective solutions to concrete degradation, restoration, corrosion prevention, waterproofing, and rehabilitation of manholes and holding pond liners. Use our coating systems to restore and maintain sand filters, clarifying tanks, holding tanks and many other steel, concrete or operational equipment. Complies with NSF/ANSI standard 61, section 5.

Military
Serving different branches of the U.S. Military, our battle- and field-tested technologies are suitable for secondary fuel spills containment from HEMTT trucks, pillow tanks, fuel bladders, and generators. Fail-Safe® MilBerms™, All-Terrain Berms™, Modular Channel MilBerms and more are designed for efficient transport and quick deployment in the field. All meet SPCC requirements.

Railroad
Flexible in design, use our rail containment systems for new or existing rail loading and unloading areas. We design your rail containment system to meet capacity requirements while using existing grades and structures. Our internal high-performance coating system provides uniform thickness to meet your pressure rating needs. External coatings can be applied with or without a high-tensile strength steel mesh to provide extremely high pressure ratings.

Chemical, Pulp/Paper & Specialty Plants
A wide range of chemical resistant products meet specialty chemical needs and requirements. Regardless of your containment needs, whether over concrete, steel or many other substrates, we offer a solution for aggressive chemical environments. Both full immersion and secondary containment products available.

*See page 19 for a detailed description of SPCC

SPCC Compliant Solutions for Oil, Fuel, Chemical Containment

Geomembrane Liner with Barrier Boom

- Self-activating, passive transformer oil containment
- Suitable for below—and above—ground applications
- Meets and exceeds SPCC and IEEE 980 requirements

Suitable for all soil types, the Geomembrane Liner with Barrier Boom system offers compliant secondary oil containment for substation transformers. Water flows unimpeded through the panels, but in the event of an oil release, the proprietary polymers in the panels will completely solidify, preventing any hydrocarbons from leaving the site. Systems are custom designed based on site-specific variables. Typically installs in two days or less. No downtime necessary—equipment can remain energized during installation.

Geomembrane Liner with Barrier Boom oil containment system during installation.

Barrier Boom—Secondary Oil Containment

- Flows a minimum of 4.5 GPM per ft^2 (with 1-foot head pressure)
- Solidifies approximately ½ gallon of oil per ft^2 (depending on type, viscosity and temperature)
- No need for concrete walls, sump pumps, oil-water separators, pits, manual valves, and hydrocarbon detectors
- Requires little to no maintenance—"bury and forget" application
- Install vertically in a to-grade or dike application

A simple, passive secondary oil containment solution suitable for impervious subsurfaces such as clay. Walls are composed of non-woven geotextile materials and a patented filtration media that prevents the penetration of oil and petroleum products, while allowing water to flow at a high rate. It is typically installed around the perimeter of the substation.

Ethylene Polymer PVC with Elvaloy® Technology Geomembrane

- Greater durability and longer-life protection than batten bar
- The strongest geomembrane for use in the world's harshest conditions
- Custom configurations

Use geomembranes for secondary containment for fuel storage tanks, pond and tank liners.

High performance features:

- Excellent stability, with low thermal expansion-contraction properties
- High-strength, chemical-resistant grade for maximum protection to high temperatures and a broad range of chemicals including acids, oils, and methane
- Formulated for long-term outdoor exposure to UV rays
- Florida Department of Environmental Protection Agency approved for secondary containment

Geomembrane shown with PolySeam®

CASE STUDY

Installation of Approximately 215,000 Square Feet of Ethylene Polymer PVC Membrane Material at a Gas Power Plant in Florida

Two tanks holding a total of 3 million gallons of diesel fuel required reliable containment. The first phase of the project involved removal of approximately one foot of dirt in the containment area. Elevation was then established for storm water drainage. Thousands of rolls of liner were brought to cover the 215,000 total square foot area. Each roll took approximately a half-hour to install. The installation was completed within a scheduled timeframe of four weeks.

Workers unrolling liners.

Completed installation providing reliable, safe secondary containment for 3-million gallons of diesel fuel.

Elvaloy® is a registered trademark of DuPont

Rigid-Lock QuickBerm®

- Secondary containment with drive-in, drive-out capability for vehicles
- Flexible, durable geomembrane liner sets up in minutes, no assembly needed
- Stainless steel brace support for strong structural integrity, no sagging
- Folds down for easy portability

Rigid-Lock QuickBerm offers one-piece construction for 100% leakproof protection to avoid costly fines and comply with EPA and SPCC. Reliable protection for the environment against hazardous spills from:

- Vehicles
- Generators
- Air compressors
- Tankers
- Pumps
- Pillow tanks
- Heavy equipment
- Storage tanks
- 55-gallon drums
- Intermediate bulk containers (IBCs)

IBC containment

Fuel or tanker containment

Drum containment

Generator containment

CASE STUDY

Southwestern Utility Ensures Power Supply to Customers During Substation Rebuild

Utility company needed to find a versatile, low-maintenance secondary containment solution durable enough to last over a year while they were rebuilding a substation. They brought in a portable transformer and regulators which arrived on a mobile trailer. It required cooling oil to operate and needed to comply with SPCC regulations.

A custom-designed Rigid-Lock QuickBerm was the answer. Its single-piece, durable liner construction allowed for fast, easy set-up with no tools or assembly required. The Rigid-Lock devices on the entry and exit walls enabled drive-in, drive-out access for the trailer with no need to raise or lower the wall. To avoid manual draining following a rainstorm, the utility connected an HFF Oil-Stop Valve to the berm. Not only did this provide continued unmonitored drainage without incurring O&M costs, it also ensured all water draining from the containment site was free of oil.

Rigid-Lock QuickBerm and HFF Oil Stop Valve provides leakproof protection and captures hydrocarbons for mobile transformer.

Rigid-Lock QuickBerm® Lite

- Leakproof containment for smaller-scaled spills
- Portable, one-piece design sets up fast and easy
- Add optional grates for use as a decon station or to lift containers above liquid

Tough geomembrane liner provides broad UV and chemical resistance. Patented Rigid-Lock walls with stainless steel braces lock at 90° for structural integrity. Unobstructed 100% leakproof sump offers versatile, on-the-go containment for:

- Damaged saddle tanks
- Leaky containers and equipment
- Hydraulic leaks and breaks
- Battery or transformer storage
- Refueling overfills

Capture spills from damaged saddle fuel tanks.

All-Terrain Berm™

- Leakproof containment solution for fuel bags and bladders, metal storage tanks, transformers, and waste products
- Deploys quickly and easily without tools or heavy equipment
- Waveguard™ for splashout protection

Designed for the utmost flexibility and security, the berm adapts to the contour of the ground. Features quick-set aluminum A-frame supports and 3-foot tall walls.

Military field application containing a flexible fuel tank—deployed in 45 minutes by five people.

CASE STUDY

National Guard Training Facility

Training facility in Virginia serves soldiers from regional National Guard, active military units from other installations, and soldiers from all branches of the military. In their mission to provide realistic and challenging training in support of soldier readiness and deployment missions, they utilized a 100 x 100-foot All-Terrain Berm capable of containing 210,000 gallons for fuel bladder containment.

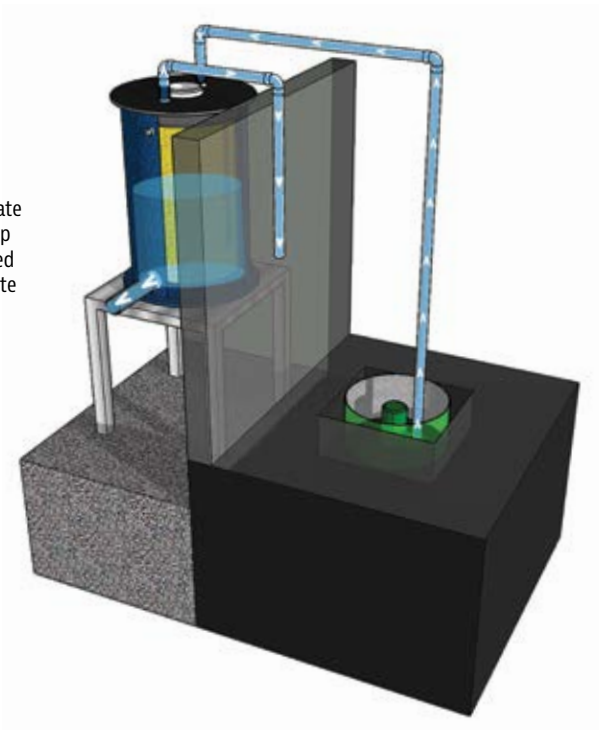
All-Terrain Berm can be customized to suit any application and size—right measured 100 x 100-feet.

Safe and Compliant Dewatering and Filtration Solutions

VIPOR-100 SOWF System

- High flow rates > 100 GPM using patented solidifier technology
- 100% automatic shutoff during oil release
- Advanced oil-water separator

The VIPOR-100 delivers the industry's highest flow rates and offers low maintenance. Helps customers lower, and in some cases eliminate, the costs associated with manually evacuating standing water in containments.



VIPOR-100
100+ GPM flow rate VIPOR 100 Oil Stop System, configured outside of concrete substation moat.

Plug and play installation
Simply plumb units into existing drainage systems or into substation yard.

CASE STUDY

New York Utility Saves on Secondary Containment O&M Costs

The electric utility wanted a solution to prevent standing water in the containment moats and decrease operation and maintenance (O&M) costs. They preferred an automatic pumping system with high flow rates. It was important for the system to be simple to maintain, able to filter hydrocarbons to a non-detectable level, and provide complete shut off in the event of an oil release.

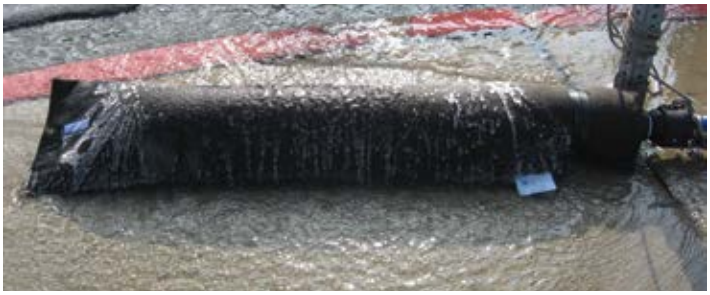
The utility replaced many of its low-flow filtration units with the VIPOR-100 SOWF system, and ordered several more. They saved money because they achieved higher flow rates with less maintenance over their previous system.

Portable and compact
35-½-in high x 22-¾-in diameter.

EVAC Filtration System

- Easy-to-use, reusable dewatering equipment filters sediments
- Filters oil sheen
- Eliminates vac trucks and water processing
- Comes in storage bucket

Part No	Camlock
EVAC-2M	2-in male
EVAC-2F	2-in female
EVAC-3M	3-in male
EVAC-3F	3-in female



Removes suspended solids and light sheen from water discharge operations. Use in vaults, manholes, elevator shafts, bilges, tanks and more.

HFF Oil-Stop Valve

- Self-activating, passive filtration system for secondary containment drainage
- Quickly evacuates water while safely removing hydrocarbons
- Multi-directional filtration provides highest flow rates on the market

Versatile filtration device that filters and processes rain water, reducing organic hydrocarbons to a non-detectable level while meeting SPCC and IEEE 980 requirements. Automatically shuts off in the event of a major oil release. Requires low maintenance when used with reusable pre-filter. Standard and custom sizes available per specified flow rates.

Part Number	Flow Rate*
HFF2x12M	Up to 8 GPM
HFF4x12M	Up to 18 GPM
HFF4x24M	Up to 25 GPM
HFF6x24M	Up to 31 GPM
HFF14x24M	Up to 100 GPM
HFF14x24MC	Up to 100 GPM

* at 12-inch head pressure; varies per vertical or horizontal mounts

Use with a variety of containment systems. Standard and custom sizes available, per specified flow rates.

Compliant Containment Coating Solutions

SC-3900 Coating Systems

- Quick installation spray-applied coating with short cure time seals a leak rapidly and eliminates vulnerabilities to weather and moisture—offers leakproof containment
- 300% elongation allows it to remain flexible and move with the substrate
- 3700-5500 psi tensile strength for excellent durability
- Resistant to abrasion, corrosion, fuels and chemicals
- UV and high-temperature resistant

SC-3900 coatings bond to most substrates including overlay for earthen/soil, steel, concrete, asphalt, and several other substrates. Application thickness ranges from 40 to 1000 mils. Once solid, it is 100% free of VOCs. Complies with NSF/ANSI Standard 61, section 5 2011, is approved for secondary containment by the Florida Department of Environmental Protection Agency, and is accepted by the US Army Corps of Engineers.

Versatile applications:

- Concrete containment areas
- Fuel containment systems
- Steel coatings
- Earthen berms
- Tank linings
- Floating roofs
- Repair traditional HDPE and ethylene polymer PVC with Elvaloy® technology liners
- Truck loading bays/racks
- Extend storage tank roof life
- Potable water systems
- PCB and asbestos encapsulation
- Waterproofing
- FDA food contact systems
- NSF 61 approved systems
- Manhole rehabilitation and repair
- Silo rehabilitation

Spray-on technology coats smoothly to repair cracks and leaks—tack-free in seconds

Precipitator coating

UV and corrosion resistant high-strength coating for tanks

Internal tank containment coating

Elvaloy® is a registered trademark of DuPont

Concrete containment

Truck loading rack

Fuel containment area

JFK airport jet fuel tank farm concrete containment coating

Seals old, brittle bolts to prevent leaks including sump areas that accumulate sludge

Total Release Annular Protection System (T.R.A.P.S.)

- For new and existing tanks—approved by the Florida Department of Environmental Protection Agency requiring overfill protection system
- Provides continuous monitoring of a containment area for hydrocarbons
- Valve closure activates at desired rate with instantaneous closing of containment valve

T.R.A.P.S. immediately notifies personnel with visual and audio alerts should hydrocarbons be detected. Custom options include email, cell phone or other—interfaces compatible with most PLCs. Durable containment system provides an impervious coating—no VOCs, rapid cure time. Applied over soil, asphalt, concrete, steel, and more.

Hydrocarbon sensor detects most common light fuels in 3 seconds with 1-mm film

Control panel monitors up to 128 sensor circuits simultaneously

Concrete application

CR-3000 Chemical Coatings

- Faster set times gets equipment back in service within hours, not days
- Outstanding adhesion and elongation, primer not necessary
- Suitable for tank and pipeline repairs: stops leaks, repairs cracks, bridges gaps, stops deterioration and freeze thaw

Spray applied elastomer system is comparable to epoxy systems—offers a cost-effective way to rehabilitate equipment and structures.

Leak and crack repair

Holes in tank were repaired using our structural coating system

Pipeline repair

Chemical resistant coating

PolySeam® Liner Attachment System

When used with our liners, the patented, cost-effective PolySeam system replaces maintenance and repairs needed to maintain integrity of the batten bar method of attachment—for a virtually maintenance-free system

- Installs faster and is more durable, saving thousands of dollars in installation costs
- Installs in the most extreme conditions

Concrete application

Double-bottom tank sealed with PolySeam prevents water from going under the tank, no corrosion.

Steel sheeting application

Pump pad application

Pipe support application

CASE STUDY

Hydrostatic Pressure Test Proves Secondary Containment Solution Won't Leak

An electric utility installed a 60-mil HDPE liner and sump pump for containment at a transformer pit. After a few months, they suspected the lack of water in the sump indicated that water was escaping through the liner itself. To mitigate any potential catastrophic leak into a local harbor, they decided to install another liner over the existing one, with a requirement for a hydrostatic pressure test to ensure it met their engineering standards.

The solution included a switch to a 40-oz PVC liner, and using the PolySeam spray-on coating system to seal the number of cable and ground grid penetrations. A hydrostatic pressure test was conducted to check for strength and leaks. To pass, the pit could lose no more than 1-inch of water in a 24-hour period, after factoring in evaporation. The system passed, surpassing the utility operator's high standards. For low maintenance and 100% automatic shutoff during an oil release, the VIPOR-100 SOWF was recommended to filter and evacuate standing water and decrease O&M costs.

Justrite™
Safety Group

Start with the Essential℠

For over a century, Justrite Safety Group has protected workers, workplaces and the environment with a comprehensive range of industrial safety solutions.

Worker & Workplace Safety

- Cable Management
- Emergency Showers
- Hazardous Storage
- Industrial Matting
- Motion Safety

Environmental Protection

- Aerosol Recycling
- Ground Protection
- Material Handling
- Secondary Containment
- Spill Containment

To learn more about our full portfolio of products, please visit ***justrite.com***

About compliance with EPA and SPCC

One top priority of the Environmental Protection Agency (EPA) is to prevent, prepare for, and respond to oil spills that occur in and around inland waters of the United States. EPA's oil spill prevention program includes the Spill Prevention Control and Countermeasures (SPCC) rules and is a part of the Clean Water Act found in 40 CFR part 112. Its purpose is to prevent oil and oil-related materials from reaching navigable waters and adjoining shorelines. Many industries require a SPCC plan that includes secondary containment for oil and fuel storage containers. Some local state and municipal governments have separate requirements that must be adhered to in addition to the federal regulations.

A facility is subject to the SPCC regulations if it has a total aboveground oil storage capacity greater than 1,320 U.S. gallons or 42,000 U.S. gallons of buried storage capacity. Any container with a capacity of 55 gallons or more should be included in the site capacity assessment. All types of hydrocarbon based oils are subject to the SPCC regulations. Common oils addressed by the SPCC regulations are: petroleum, fuel oil, sludge, oil refuse, oil mixed with wastes, fats, all animal oils, vegetable oils, synthetic oils, and mineral oils. Any site that stores, processes, refines, uses or consumes oil and is a non-transportation-related operation is subject to the SPCC rule. Facilities that meet these criteria must comply with the SPCC regulations.

Put Our Expertise to Work for You

At BCI, we are dedicated to protecting people, property and the planet. Our experts will help you select solutions that work for your organization and guide you into compliance with EPA and SPCC.

To learn more about our customized line of secondary containment solutions, call:

BCI
BASIC CONCEPTS INC
Justrite Safety Group

Portable secondary spill containment

1-800-285-4203
sales@basicconcepts.com

Hydrocarbon management for secondary containment

1-866-242-4368
sales@basicconcepts.com

Fuel storage containment and coating systems

1-813-659-3512
sales@basicconcepts.com

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