



## **2.0 Company Summary**

HRS is a start-up company based out of Pascagoula, MS. The company's primary goal is to develop robotics systems to transport hazardous waste to proper disposal sites. HRS is classified as an S Corporation according to the tax laws of the State of Mississippi.

The founding members are Rahul Bhakta, BSCPE, Victor Alfaro, BSCPE, Brandon Nichols, BSEE, and Sakinah Reid, BSEE. These members share the vision of using their education to develop robotic systems that will provide safer working environments for those employees who risk exposure to hazardous waste materials.

Rahul Bhakta will serve as CEO, while Victor Alfaro will serve as Vice-President of R&D. Sakinah Reid will serve as Vice-President of Production. Brandon Nichols will serve as Vice-President of Marketing & Sales.

## **2.1 Company Location**

HRS is located at an industrial park near the city of Escatawpa, where Mississippi Power's® Plant Daniel is located. Recently, HRS has made an agreement with the aforementioned plant to use their facilities to test our robotic systems in order to improve the development process. In exchange, the aforementioned plant will receive the first developed system at a discounted rate.

Mississippi is one of few states who meet the EPA's RCRA State Authorization program requirements. As a result, the State of Mississippi's hazardous waste regulatory agency has been given the authority from the EPA to ensure that waste disposal programs meet both state and federal regulations. In other words, this program delegates "the primary responsibility of implementing the RCRA hazardous waste program to individual states in lieu of EPA" [1]. This advantage will save HRS time and money in gaining approval from both the state agency and the EPA by simply gaining approval from one agency.

## **2.2 Company Facilities**

HRS currently owns a 58,000 square foot facility at the Pascagoula industrial park. Ten thousand square feet has been allocated to serve as an office building, while the rest has been allocated for manufacturing, testing, and research. This park still has 40 lots (each 2 acres) available for purchase. Furthermore, these lots are sold at reduced rates for current lot owners. Hence, if there is a need to expand in the future, this park will easily accommodate future growth.

The office building consists of a lobby, receptionist desk, conference room, viewing room (to view the manufacturing process and demonstration), employee lounge, six management offices, twenty cubicles (each with a personal computer), and four restrooms.

The manufacturing facility (which is connected to the office building) consists of a research and development lab, a testing lab, a demonstration room, and a manufacturing area. The manufacturing area consists of arm development, locomotion, sensor attachment, and wireless control machinery.

### 2.3 Company Strategy

Initially, HRS will exclusively develop hazmat removal systems for the power industry. During this time, we will gain approval from the regulatory agency for hazardous waste of the State of Mississippi. Within a period of 2 years, we hope to supply systems to power industries throughout Mississippi and hope to gain approval from the regulatory agencies of the states of Alabama, Georgia, Tennessee, South Carolina, and North Carolina. Currently, these states also meet the EPA's RCRA State Authorization program requirements. Our method of approaching these facilities would be on an individual basis. Because each facility has its own design and its own specific needs, each plant would have a solution tailored to their requirements. Though we would approach potential clients on an individual basis, HRS will increase exposure by attending various conferences, such as the Electric Power Expo.

After a period of 5 years, HRS hopes to grow out of the Southeastern U.S. region and into other states that meet the EPA's RCRA State Authorization program requirements. During this time, we also plan to expand our line of products in order to move into other hazmat removal fields. However, this expansion would only take place in states where HRS has been established for at least a period of 3 years. In those states, our reputation with the power industries will have grown to a point where less marketing would be needed to move into other fields.

### 2.4 Start-Up Costs

<b>Startup Expenses</b>	
Legal	2,000.00
Stationary	1,000.00
Brochures	1,000.00
Consultants	5,000.00
Insurance	15,000.00
Land and Construction	2,000,000.00
Research and development	100,000.00
Expensed Equipment	300,000.00
Other	1,000.00
<b>Total Startup Expenses</b>	<b>2,425,000.00</b>
<b>Startup Assets needed</b>	
Cash Balance on Starting date	2,000,000.00
Startup Inventory	
Other Current Assets	40,000.00
<b>Total Current Assets</b>	<b>2,040,000.00</b>

<b>Total Startup Requirements</b>	4,465,000.00
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## **Funding**

### **Investment**

Rahul Bhakta	350,000.00
Victor Alfaro	300,000.00
Brandon Nichols	150,000.00
Sakinah Reid	200,000.00
Ray Bhakta	500,000.00
Victor Alfaro, Sr.	500,000.00
Other	0.00

<b>Total Investment</b>	2,000,000.00
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### **Current Liabilities**

Accounts Payable	20,000.00
Current Borrowing	0.00
Other Current Liabilities	0.00
<b>Total Current Liabilities</b>	20,000.00

Long-term Liabilities	0.00
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<b>Total Liabilities</b>	20,000.00
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<b>Left To Finance</b>	2,445,000.00
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Loss at Start-up	-20,000.00
Total Capital	2,020,000.00
Total Capital and Liabilities	2,040,000.00

## **3.0 Product Description**

Though each design will be unique for a given client, there are features that will be present in virtually every product. Each robot will load drums of hazardous waste onto a palate. During this phase, a camera on the robot assists the operator in controlling the loading process. Finally, after loading the palate with the drums of waste, the robot will lift palate in a forklift fashion. Finally, the robot and palate can be loaded into a vehicle to be transported to a disposal site. At the site, the operator can control the robot's disposal procedure through a portable monitor and camera.

## **3.1 Sourcing**

HRS will initially contract some of the major components for its products to other companies. For instance, an agreement has been made with Caterpillar® to construct a modified base for the forklift mechanism. However, the circuitry designs, programming, component selection, and testing will be performed internally by HRS.

### **3.2 Future Products**

After HRS has established itself in the power industry, it will develop different robotic systems for other fields of hazardous waste removal, such as asbestos abatement systems. Also, HRS can continue in its vision by developing other technologies that do not necessarily have to do with the removal of hazardous waste or robotics. For instance, HRS can develop Geiger counters for those risking exposure to radioactivity.