### **SCOPE OF WORK**

I.	<u>Scop</u>	e of Solicitation	Page 1
II.	Instructions to Offerors		
	А.	Online Registration	Page 2
	B.	Bid Attributes	Page 2
III.	<u>Scop</u>	Page 2	
	А.	Background	Page 2
	В.	Specifications and Requirements	Page 3
	C.	<b>Deliveries and Performance</b>	Page 5
IV.	Bidding Schedule		Page 5
	А.	Line Item Deliverables	Page 5

#### I. Scope of Solicitation

Clemson University is seeking bids from qualified companies to provide radioactive waste disposal.

The contractor shall provide all of the specified services to Clemson University.

The awarded contractor will be paid a fixed price, which shall be all-manifesting, to include any additional processing and final transportation to the place of final interment, in accordance to the specifications detailed in Section III of this document.

#### II. Instructions to Offerors

### A. Online Registration

Regardless of specific requirements below or in this document, Offerors are required to submit their bid electronically through the Clemson University online bidding system. To do so you must login (registering first) at

<u>https://sciquest.ionwave.net/prod/default.aspx?company=clemson</u>, and follow specific instructions for this solicitation. You should register several days in advance of the bid closing date so you can be approved and login in time to submit a response.

### **B. Bid** Attributes

Please follow submittal requirements outlined in the Bid Attributes in the online bidding system.

### **III.** Scope of Work – Specifications

### A. Background

Radioactive wastes are wastes that contain radioactive material. Radioactive wastes are usually by-products of nuclear power generation and other applications of nuclear fission or nuclear technology, such as research and medicine. Radioactive waste is hazardous to most forms of life and the environment, and is regulated by government agencies in order to protect human health and the environment.

Radioactivity diminishes over time, so waste is typically isolated and stored for a period of time until it no longer poses a hazard. The period of time waste must be stored depends on the type of waste. Low-level waste with low levels of radioactivity per mass or volume (such as some common medical or industrial radioactive wastes) may need to be stored for only hours, days, or months, while high-level wastes (such as spent nuclear fuel or by-products of nuclear reprocessing) must be stored for thousands of years. Current major approaches to managing radioactive waste have been segregation and storage for short-lived wastes, near-surface disposal for low and some intermediate level wastes, and deep burial or transmutation for the long-lived, high-level wastes. [from: http://en.wikipedia.org/wiki/Radioactive\_waste]

### **B.** Specifications and Requirements

The dry active waste (DAW) consists primarily of debris from University research laboratories to include: paper, gloves, plastic, and broken glassware. The majority of the DAW wastes have been compacted into 55-gallon drums.

Liquid waste is comprised of non-hazardous and hazardous liquid scintillation media as bulk and vials in packaged in 30-gallon plastic drums.

DAW, packaged in 55 gal metal drums shall be shipped directly to a licensed Low Level Radioactive waste repository with no additional processing, no double brokering or interim storage greater than 30 working days.

The successful bidder shall be licensed for the collection and handling required for disposal. Documentation shall be included with submission of the bid.

Payments for waste collection, transportation, and final disposal will be made within thirty days of receipt of a disposal certificate documenting that the DAW waste has been received by the licensed radioactive waste repository and that all liquid wastes have been destroyed.

Final disposal of all liquid waste shall be by incineration only. Burning of the waste for energy recovery at an EPA licensed fuels blending facility is acceptable.

The manifested facility shall be either the processing or disposal facility with no interim storage allowed. The successful bidder must provide disposal certificates and have the ability to provide waste tracking on all materials shipped from the University.

Waste from Clemson University's (CU) main campus (license #540) will be presented for transportation from 501 Lake Dr. Clemson, SC.

The bid shall include replacement of all shipping containers presented for disposal.

Clemson retains the right to approve or disapprove processing and disposal sites based on current and past regulatory history and financial conditions.

# CU Main Campus Waste Inventory (License #540)

2014 Waste Drum Inventory							
Drum ID	Weight (lbs)	Waste Type	Isotope	Activity (Ci)			
DAW-01-13	255	Dry	Np-237	1 x 10 <sup>-9</sup>			
"			C-14	0.01			
"			Pu-238	1 x 10 <sup>-9</sup>			
DAW-02-13	200	Dry	Pu-238	4 x 10 <sup>-9</sup>			
"			U-238	3 x 10 <sup>-9</sup>			
"			Pu-239	4 x 10 <sup>-9</sup>			
DAW-03	210	Dry	C-14	3x10 <sup>-4</sup>			
DAW - 04	175	Dry	U-238	$2 \times 10^{-9}$			
"			H-3	3 x 10 <sup>-7</sup>			
DAW-05	230	Dry	Sr-90	$2 \times 10^{-3}$			
			Cs-137	3 x 10 <sup>-3</sup>			
DAW-06		Dry	Pu-238	$3 \times 10^{-9}$			
			U-238	$4 \times 10^{-9}$			
			Pu-242	$4 \times 10^{-9}$			
	405		10-99	$2 \times 10^{-9}$			
DAW-07-13	195	Dry	1-125	6 X 10			
DAVA( 00.12	200	Dec	H-3	5.5X10			
DAW-08-13	200	Dry	10-99	7 x 10 <sup>-9</sup>			
			Pu-238	7 x 10			
			U-238	7 x 10 <sup>-9</sup>			
			Pu-242	$7 \times 10^{-4}$			
DAMA 00.12	200	Deri	C-14	2 × 10			
DAW-09-15	200	Dry	C-14	1.5 X 10			
UA VV-01-14	205	Dry	C-14	$0 \times 10^{-3}$			
DA14 02 44	425	D.	□-3	I X 10			
DAW-02-14	125	Dry	C-14	$5 \times 10$			
		_	Po-210	1 x 10 °			
DAW-03-14	200	Dry	Pu-238	7.6 x 10 <sup>-6</sup>			
"			C-14	$5.4 \times 10^{-5}$			
"			H-3	4.1 x 10 <sup>-5</sup>			
"			Fe-55	5 x 10 <sup>-7</sup>			
LSV-01	173	Scint Vials	C-14	1.3 x 10 <sup>-7</sup>			
LSV-02	180	Scint Vials	C-14	1.3 x 10 <sup>-7</sup>			
LSV-03	103	Scint Vials	H-3	7.5 x 10 <sup>-4</sup>			
"			C-14	1.25 x 10 <sup>-7</sup>			
LSV-04	116	Scint Vials	C-14	1.5 x 10 <sup>-7</sup>			
LSV-05	67	Scint Vials	Pu-239	1 x 10 <sup>-9</sup>			
"			U-235	1 x 10 <sup>-9</sup>			
LSV-06	170	Scint Vials	C-14	$5 \times 10^{-7}$			
LSV-07	115	Scint Vials	C-14	$4 \times 10^{-7}$			
	122	Scint Vials	Du-238	1 x 10 <sup>-9</sup>			
	2/7		Natural Uranium	1 E x 10 <sup>-6</sup>			
DAL-UI	247	Corrosive Liquid (pH <1)	ivaturai Oranium	T'2 X TO			

Any questions concerning the Specifications and Requirements should be submitted to jodyb@clemson.edu by the date and time shown in the 'Deadline for Questions.'

# C. Deliveries and Performance

### 1. Deliveries

Deliverables under this contract shall be prepared using best commercial practices so as to ensure safe and timely delivery. Clemson University will review and verify that all work and deliverables under this contract fulfill the requirements stated in Section III. Inspection and acceptance of all Items and work under this contract will be made by Clemson University.

# 2. Schedule of Deliverables and Delivery Address:

NOTE: Offerors shall include all necessary shipping costs (such as import taxes, duties, and delivery charges) in their price.

# IV. Bidding Schedule

Offerors are required to submit their bid electronically through the Clemson University online bidding system. To do so you must login (registering first) at <u>https://sciquest.ionwave.net/prod/default.aspx?company=clemson</u>, and follow specific instructions for this solicitation. You should register several days in advance of the bid closing date so you can be approved and login in time to submit a response.

This is a "Best Value Bid" (BVB). The purpose of best value bidding is to allow factors other than price to be considered in the determination of award for specific supplies, services, or information technology based on pre-determined criteria identified by the State.

**Evaluation Factors:** 

- Price: 60%
- Prior record of vendor performance: 40%
- Quality and effectiveness of approach: 40%

# Pricing must be entered in the online system under the "Line Items" tab.

Along with your price submittal online, please attach a document to your bid that addresses your company's prior record of performance and the quality and effectiveness of your proposed approach. This document should contain NO price or financial information.