Appendix B
Waste Sampling: Waste Stream Identification and Characterization

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WASTE SAMPLING

Waste Stream Identification and Characterization

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Background

Oil-impacted materials generated as part of the MC 252 Oil Spill Incident response efforts are being tested for waste characteristics that would be used by receiving facilities to verify the materials meet facility-specific acceptance criteria, and to complete facility-specific waste profiles. Sampling and analysis also provides additional information to response workers and the public regarding the chemical and physical properties of materials that were generated and managed during the response and that required transportation and disposal.

Samples of off-shore weathered oil, oily vegetation and other oily solids from spill response activities have been collected and characterized. To date, analytical results have confirmed these materials do not exhibit hazardous waste characteristics. Also, federal and state regulations exempt most of these materials from the definition of hazardous waste due to the exploration and production exemption (see 40 CFR 261.4(b)(5)). In addition, the two chemical markers associated with the dispersant used offshore (propylene glycol, 2-butoxy ethanol) were not detected. Therefore, the sampling activities described in this plan will be used for waste management purposes only.

Identification and Classification of Waste Streams

The general waste streams that are anticipated from oil spill cleanup activities are described in Table I. The actual volume of each reclaimable/recyclable material, recovered oil or cleanup waste type that may be generated is unknown and is dependent on the extent of oil spill impact areas, duration of the event, and containment and collection/cleanup operations. All waste streams shall be characterized in accordance with all requirements of the facilities selected for recycling (primarily oil) or waste disposal, as defined in the permit requirements for each facility, as indicated in the *Recovered Oil/Waste Management Plan Houma Incident Command* and the *Deepwater Horizon (MC252) Solid Waste Management Plan, Mobile Sector*, and as specified by applicable federal and state regulations.

The preferred method of managing the oil-impacted materials collected as part of the spill response is through recycling, or reuse. Oil-impacted materials that can be recycled are not required to be sampled for waste characteristics. For waste characterization purposes, the liquids included in Table I are only those liquids that are not recycled, reused, or reclaimed.

At a minimum, any new waste stream shall be sampled and analyzed for the parameters in Table I in order to characterize and profile the material. Additional laboratory analyses for chemical and physical properties shall be performed on specific waste streams, depending on the source of generation, treatment and disposal facility requirements.

On-going sampling and analysis of the waste materials shall be conducted for quality control of materials entering the disposal facilities. For active waste streams, samples shall be collected at each active staging area on a State-by-State basis and as required by each state. Samples shall be taken at newly created staging areas as they are established. For solid wastes, sampling shall occur on a weekly basis. After six weeks of sampling and analysis the waste, BP shall review the results of the testing. If the test results consistently indicate that the waste is non hazardous, BP will propose a revised schedule and sampling plan to analyze for TCLP constituents consistent with those found in the spill-related wastes.

Within the first seven days of plan approval, quality control sampling of active waste streams shall be initiated. Each staging area will establish a weekly sampling schedule that will facilitate efficient use of sample team resources. Sample teams will attempt to gather on a weekly basis at least one representative sample from a roll-off container, frac tank, and barge as available, for each waste stream. All waste streams may not be available at all staging areas when sample teams are scheduled to be on-site. In such cases, samples of the available wastes will be collected and the sample teams will attempt to obtain samples the following week. Expeditious movement of waste and liquids is a priority activity for the spill response. Consistent with this priority, waste shipments will not be delayed to facilitate sampling activities.

The only exception to this schedule/plan is for sampling waste streams in Texas. The municipal solid waste (MSW) facility requires that representative sampling be performed based on the volume of waste generated. Typical sampling frequencies range from one sample per 50 cubic yards (cy) to one sample per 1,000 cy depending on the type of waste, process knowledge, and circumstances of the event (*i.e.,* natural disaster, hurricane debris, etc.). The MSW facility will be consulted to help determine the appropriate sampling frequencies. Waste that exhibits Class 1 like concentrations of COCs may be disposed of in MSW landfills that have Class 1 cells.

The procedure for actual collection of samples is presented in the attached Waste Quality Assurance Project Plan (QAPP). Sampling results shall be posted to BP's public website within 24-hours of data validation. Once data have been validated it will be made available to Federal and State Agencies via upload to SCRIBE.NET. Analytic results will also be sent to states that have requested it and have provided a point of contact for data receipt.

Table I: Potential Waste Streams

Matrix		Sampling Frequency	Analysis	Handling	Disposal
Oily Solid	Oil-impacted material from off-shore, near-shore, and on-shore cleanup activities that may include debris, soil, sand, vegetation; solid weathered oil (e.g., tar balls); PPE; rags; gloves; disposal equipment; sorbents; etc. Material shall be drained of recoverable oil, as practicable (oil shall be collected for potential re-processing or other use); Sludges and solids recovered from oil/water recovery tanks and vessel	Once per week	TCLP SW846 1311/ VOCs by SW846 8260C TCLP SW846 1311/ SVOCs by SW846 8270D TCLP SW846 1311/ Metals by SW846 6010C & SW846 7471A Paint Filter Test SW846 Method 9095 TNRCC Method 1005, Rev. 03 (for waste accepted in Texas only)	Appropriate containers (i.e., lined or sealed) transported by approved waste hauler	Approved recover/disposal facility
Liquid/ Oily Liquid	Water, oil and emulsion not contaminated with hazardous waste collected during offshore, near-shore, and on-shore skimming operations, by vacuum truck from decontamination facilities, management of storm water at land-based decontamination sites, removed from booms, etc. This category also includes excess decontamination water that accumulates during the closed loop decontamination process.	As needed basis based on final disposition of liquid	TCLP SW846 1311/ VOCs by SW846 8260C TCLP SW846 1311/ SVOCs by SW846 8270D TCLP SW846 1311/ Metals by SW846 6010C & SW846 7470A Ignitability by SW846 Chapter 7 TNRCC Method 1005, Rev. 03 (for waste accepted in Texas only)	Appropriate containers (i.e. vac truck) transported by approved waste hauler Storage in frac tanks at staging areas prior to transport Barge transportation and storage	Approved recovery/disposal facility