Attachment 2
Environmental Monitoring Program (EMP) Requirements Summary
(Section II.A.13.)

The permittee must design and implement an EMP at each drilling site for the following four phases:

- **Phase I – Baseline site characterization**
- **Phase II – During active drilling**
- **Phase III – Post-drilling**
- **Phase IV – No later than 15 months after drilling operations cease at a drilling site**

The applicant must submit a Plan of Study with the Notice of Intent (NOI) submission (Section I.C.1.). This attachment summarizes some of the main elements required in the EMP. The permittee is responsible for all elements of the EMP, as applicable, even if they are not summarized below.

Permit Section	EMP Elements	Phase I	Phase II	Phase III	Phase IV
II.A.13.e.	**Dilution, plume, and deposition modeling**[1] – complete site-specific modeling analyses of dilution, plume extent and dispersion, and solids deposition	--	--	--	--
II.A.13.f.1.	**Sea bottom survey** – conduct a survey of the physical sea bottom	X[2]	--	X[3]	X[3]
II.A.13.f.2.	**Site characterization** – collect physical data to characterize site conditions	X[2]	--	--	--
II.A.13.f.3.	**Receiving water chemistry** – collect water chemistry data to characterize the receiving water	X[2]	--	--	--
II.A.13.f.4.	**Benthic community structure –** determine the drilling site's benthic community	X[2]	--	--	X
II.A.13.j.1.	**Drilling fluids/cuttings metals analysis**[4] – collect and analyze each drilling fluids system for potential metals of concern	--	X	--	--
II.A.13.j.2.	**Sediment characteristics at drill site**[4] – collect and analyze sediment data	X	--	X	X
II.A.13.j.3.	**Benthic tissue and bioaccumulation study**[4] – evaluate benthic community tissue for metals and organics; conduct bioaccumulation/bioavailability study	X	--	X	X
II.A.13.g.1. and II.A.13.n.	**Effluent toxicity**[5] – use a tiered approach: (1) initial screening method of 4 times/well; and (2) WET testing if toxicity is triggered or once per well if discharges exceed 10,000 gallons/day and if chemicals are added	--	X	--	--
II.A.13.g.2. and II.A.13.j.4.	**Plume Monitoring and/or Observations**[6] – sample water column and discharge plume; to the maximum extent possible, collect observations for potential marine mammal deflection during periods of discharge	--	X	--	--

EMP REPORTING REQUIREMENTS

The permittee must submit the following EMP reports and notifications.

- **Phase I Notification** – Notify the permitting agency within 7 days from receipt of physical sea bottom survey data, if the data indicate the proposed well site is located in or near a sensitive biological area or habitat. (Section II.A.13.k.1.)
- **First EMP Report** – Due no later than June 1 following drilling site operation cessation and must contain preliminary results and analysis of Phases I, II, and III. (Section II.A.13.k.2.)
- **Second EMP Report** – due no later than June 1 of the year following completion of all drilling site monitoring and must contain results and analysis of each EMP element. (Section II.A.13.k.3.)

NOTES

1: Modeling reports must be submitted with the EMP Plan of Study (Section II.A.13.d.).

2: Data collected pursuant to other agency requirements may be submitted to EPA for consideration. Must be submitted with the EMP Plan of Study.

3: Map the aerial extent and depth/thickness of solids deposition caused by water-based drilling fluids and drill cuttings (Discharge 001) and muds, cuttings, and cement at the seafloor (Discharge 013). Assess and refine modeling predictions.

4: Must be completed if authorized to discharge water-based drilling fluids and drill cuttings (Discharge 001).

5: Applicable to deck drainage ((Discharge 002), desalination unit wastes ((Discharge 005), boiler blowdown ((Discharge 007), fire control system test water ((Discharge 008), non-contact cooling water ((Discharge 009), and bilge water ((Discharge 011).

6: Applicable to water-based drilling fluids and drill cuttings ((Discharge 001) and non-contact cooling water ((Discharge 009).