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March 13, 2018

Kelly Hammerle
National Program Manager
U.S. Bureau of Ocean Energy Management
45600 Woodland Road
Mailstop VAM-LD
Sterling, VA 20166

SUBJECT: December 2017 Supplemental Consistency Review Requests Concerning Proposed Seismic Testing in Atlantic Ocean offshore North Carolina

Dear Ms. Hammerle:

On behalf of the State of North Carolina, I am writing in response to letters the North Carolina Division of Coastal Management (NCDCM) received from each of the four seismic testing companies currently seeking permits and authorizations from the Bureau of Ocean Energy Management (BOEM) and National Oceanic and Atmospheric Administration (NOAA) for proposed surveys in the Atlantic Ocean off North Carolina (GXT, MCNV Marine North America CGG, Spectrum Geo Inc, and TGS (the Companies)). NCDCM requests that BOEM refrain from making any final agency decisions on these permit applications until the applicants submit supplemental federal consistency certifications.

In December 2017, NCDCM wrote to the Companies and indicated that each application was subject to supplemental consistency review by the State of North Carolina as set forth in 15 CFR 930.66 and in accordance with the federal Coastal Zone Management Act (CZMA). NCDCM based its request for supplemental consistency certifications on “significant new circumstances or information relevant to the proposed activity and the proposed activity’s effect on any coastal use or resource,” pursuant to 15 CFR 930.66. In its letter to each applicant, NCDCM referenced five new, peer-reviewed scientific articles published between 2015-2018 that outline significant new concerns related to recreational and commercial fisheries impacts of seismic testing. All of the letters to the Companies are attached to this letter.

In their responses, each applicant declined to submit a supplemental consistency certification in accordance with 15 CFR 930.66, citing a lack of new information or different coastal effects from those previously addressed in their federal consistency certifications reviewed by NCDCM in 2015. Despite the arguments raised by the applicants and their technical reviewers, NCDCM’s request clearly meets the threshold for supplemental consistency certifications as outlined in 15 CFR 930.66.

The responses received from the four applicants (on which you were copied) were evidently coordinated and similar in content and substance, so NCDCM will address their arguments collectively. First and foremost, the applicants declined NCDCM's request for supplemental consistency reviews based on a lack of new information, yet include more than 10 pages of arguments and information in response to the new studies upon which the State has based its request. NCDCM appreciates the additional information provided, but again requests that the applicants submit their responses in the form of a supplemental consistency certification in accordance with federal law. This is not only required by federal law, but provides the State with information upon which we can responsibly evaluate these significant proposals.

NCDCM also needs the additional time provided for state consistency reviews under federal rules in order to fully evaluate the new information and arguments articulated in the applicant's recent responses. This will provide an opportunity for NCDCM to circulate the supplemental consistency certifications to other North Carolina agencies, issue a public notice, and offer a period for public comment. Questions and concerns that may arise through this process can then be coordinated with the applicants, as with any federal consistency review process.

If the State's review results in a determination that the proposed seismic surveys are inconsistent with enforceable state policies, or if the State applies conditions unacceptable to the applicants, federal rules also establish clear dispute resolution (mediation) and administrative appeal rights and procedures. In the event of a serious disagreement between a state coastal program and a federal agency, either party may request that the Secretary of Commerce (Secretary) mediate the dispute. Secretarial mediation is a formal process that includes a public hearing, submission of written briefs, and meetings between the parties.

In the short time since NCDCM received the applicants' responses, staff contacted several scientists at in-State universities who specialize in anthropogenic noise in marine environments, fisheries biology and behavior, and oceanography to gather their initial feedback about the company responses we received. These North Carolina-based scientists raised various concerns related to the claims and arguments made by the applicants and the applicants' technical reviewers. Below are just a few examples of the initial concerns raised:

- Possible impacts on zooplankton from seismic air guns may be more profound than previously thought. This question is of special importance to North Carolina given the critical function of zooplankton as the base of the food web and the rich diversity of fish fauna important to our commercial and recreational fisheries, and given that the proposed seismic activities in North Carolina waters are much larger in geographic scope and air gun intensity than the experiment presented in McCauley et al. (2017).
- The applicants' reviewers criticize sampling protocols but do not outline preferred methods, and question clear observations of zooplankton mortality without providing additional information to support that zooplankton mortality will be insignificant. While recent peer-reviewed studies are not definitive, significant questions have been raised that cannot simply be dismissed.

- The expansive spatial scale, repetitive, and cumulative impacts of survey operations by different companies overlapping in the same locations have not been calculated or estimated.
- One of the applicants' reviewers asserted that impacted zooplankton populations will be replaced through "extensive movements of water masses." The reviewer offers no information regarding the movement of water masses or how this relates to the potential replacement of billions of zooplankton.
- The applicants' reviewers referenced a "*behavioral startle response to in situ seismic air guns.*" However, Paxton et al. (2017) provided evidence from North Carolina waters that "*during exposure to seismic noise, the prevailing pattern of heavy fish use of reefs during the evening was suppressed. The finding is notable in that beyond detecting a startle response from individual fish, it also implies a multi-species response to airgun noise...*" (emphasis added).

The proposed seismic surveys off North Carolina, both individually and collectively, have significant implications in a region that hosts greater marine diversity than any other location along the Atlantic coast of the United States. The new information we have outlined above and in the attached letters presents reasonably foreseeable, different coastal effects than were initially reviewed. We assert that the rules and processes established pursuant to 15 CFR 930.66 were intended for precisely these kinds of circumstances.

In sum, these proposals require careful review and coordination with the State through established federal law and procedures. Therefore, the State of North Carolina again requests that BOEM refrain from making any final agency decisions on these permit applications until such time as the federal consistency review process is formally and lawfully concluded.

Sincerely,



Braxton Davis
Director, N.C. Division of Coastal Management

Cc: Michael Regan, Secretary, N.C. Department of Environmental Quality (DEQ)
Joshua H. Stein, N.C. Attorney General
Steve Murphey, Director, Division of Marine Fisheries, DEQ
Joe Balash, Assistant Secretary for Land and Minerals Management, Dept. of Interior
Brian Cameron, Environmental Scientist, BOEM, Dept. of Interior
Chris Oliver, NOAA Assistant Administrator for Fisheries
Jolie Harrison, Office of Protected Species, NOAA NMFS
Jeffrey L. Payne, Sr. Exec. Service Director, Office for Coastal Management, NOAA
Kerry Kehoe, Federal Consistency Specialist, Office for Coastal Management, NOAA
Richie Miller, President, Spectrum Geo, Inc.
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