

SP0080401 PROSECUTION AND PROGRESS – LIMITATIONS OF OPERATIONS –
NIGHT WORK ALONG COASTAL ROADS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Scott Arnold
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Comments: (4-30-19, Internal)

~~PROSECUTION AND PROGRESS – LIMITATIONS OF OPERATIONS – NIGHT
WORK ALONG COASTAL ROADS.
(REV 4-8-19)~~

SUBARTICLE 8-4.1 is expanded by the following new Subarticle:

~~8-4.1.1 Additional Requirements for Night Work Along Coastal Roads: The
project is located adjacent to sea turtle nesting habitat. Direct all work zone lighting away from
the beach to avoid illumination of or direct visibility from the beach. Any work zone lighting that
is visible from sea turtle nesting habitat must be directed away from the nesting habitat. Shield
luminaires to avoid lighting areas outside of the immediate construction area.~~

AS Arnold, Scott
This Special Provision is only to be used for projects that are located adjacent to sea turtle nesting habitat. Why do you need this first sentence? Recommend to delete.

Response: Comment considered but no change made.

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Comments: (5-3-19, Internal)

Shouldn't dates for nesting season be addressed somewhere? Defining the nesting season would remove ambiguity.

However, I am concerned that if a specification is implemented, there will be an expectation that compliance will ensure the ability to work during low light or night hours in these locations. I have been involved (in the past and currently) with projects that produce a lighting plan and the DEP or other regulatory agency simply says "no". This spec may produce a conflict between the spec and the environmental permit. If there is a spec that addresses lighting in coastal areas, there is an expectation of being able to work if you comply with the spec. This may not always be the case. The environmental permit is always going to win, and each permit that I have seen has language similar to this spec about the lighting requirements "if" the regulating agency allows it.

Response: Ananth,

Thank you for sending in this comment. I am forwarding it to our environmental office for a more detailed response but, I'll offer these initial thoughts for now:

This will be a Special Provision that will only be included in the Specifications when Sea Turtle nesting has been identified within the project area during the design phase. We developed this language in conjunction with FDEP and the Florida Fish and Wildlife Commission to address conditions where the work is occurring near a habitat but, a permit is not required. So, I would not expect there to be a conflict between the Spec and any permit conditions. Thank you. (State Specifications Office Response)

Thank you for sharing Ananth's comments. The team has reviewed and agrees with your assessment regarding the possibility for conflict between the special provision and permits. Just to be clear though, FWC and USFWS were the agencies we coordinated with. FWC is a commenting agency regarding sea turtles for FDEP permits.

Also, we specifically did not include the sea turtle nesting season as it covers several months of the year and it didn't seem practical that the contractor would change their work zone lighting approach should a portion of the contract be outside of the nesting season.

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Comments: (5-20-19, Industry)

Please consider allowances for any or all of the following: • Low-height illumination in any direction during paving operations if the light source is below the elevation of existing physical obstructions (i.e. sea walls, dunes) that would block lighting of the beach, CCEI to confirm no light trespass • Specialty amber LED lighting with shields and/or louvres in compliance with applicable, current FWC, FDEP, and USFWS guidance • Language lifting this requirement outside of sea-turtle nesting season, when allowed by the applicable permits (FDEP CCCL, USACE) • The allowance of lighting if a full time environmental expert is on-site to ensure no disruption to sea turtle nesting habitats is made, with a caveat that the job will be shut down in the case that any sea turtle nest activity is observed, similar to how we do with certain endangered bird species. We have had problems with paving quality due to shadows and visibility issues during paving operations. Example project: During the acceptance and warranty period for the A1A Emergency Restoration project in Broward County, there were significant amounts of disputes revolving around poor paving surface quality. These conflicts centered around issues with asphalt segregation, excessive casting of asphalt onto the paving surface, rollers picking up asphalt, etc. The contractor argued that black asphalt, at night, with no street lighting, and only one direction of illumination, made visible asphalt deficiencies nearly impossible to see in the field due to darkness and shadows. The plans required him to work at night, since in most locations in Florida, A1A is a two-lane two-way roadway with no street lighting and no permissible full detours. The CCEI confirmed that visibility conditions were very difficult under these restrictions. Enforcement of warranty repairs was extremely difficult, and the end result was a less-than-desirable roadway riding surface.

Response: **Bullet Point #1: Comment considered but no change made.**

Bullet Point #2: Comment considered but no change made. Work zone lighting must meet minimum OSHA requirements.

Bullet Point #3: Comment considered but no change made. This special provision is applicable when a project is adjacent to sea turtle nesting habitat and where there is no permit. The special provision could also be used when the permit does not include a condition(s) addressing sea turtle lighting. Also, the proposed specification does not include the sea turtle nesting season as it covers several months of the year and it did not seem practical that the contractor would

change their work zone lighting approach should a portion of the contract be outside of the nesting season.

Bullet Point #4: Comment considered but no change made. Unrestricted lighting during sea turtle nesting season cannot be allowed, even with an environmental monitor, because artificial lighting goes beyond just affecting observable nesting behavior on the beach. Lighting issues begin to alter sea turtle behavior at sea when a female is deciding where to emerge from the surf to begin egg laying. Lighting can deter sea turtles from approaching nesting beaches and may lead them to select less appropriate nesting sites, which may decrease nest and hatchling success. Therefore, it will be unknown what affects a construction project's lighting will have during nesting season, even with a monitor on site. Please see FWC's technical report *Understanding, Assessing, and Resolving Light-Pollution Problems on Sea Turtle Nesting Beaches* (2014) for more information on artificial lighting effects on sea turtles.
