

DOCKET

08-AFC-13

DATE JUL 29 2010

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STATE OF CALIFORNIA

**Energy Resources Conservation
And Development Commission**

In the Matter of:
The Application for Certification
for the Calico Solar Power Project
Licensing Case

Docket No. 08-AFC-13

**PREPARED DIRECT TESTIMONY OF EDWARD P. PHILLIPS
BNSF RAILWAY COMPANY**

July 29, 2010

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BNSF Railway Company

PREPARED DIRECT TESTIMONY

OF

Edward P. Phillips

Manager Environmental Operations – California Division, BNSF

Q.1 Please state your name and occupation?

A.1 My name is Edward P. Phillips. I am the Manager of Environmental Operations for the California Division of BNSF Railway Company ("BNSF"). I am based in San Bernardino, California. My resume is attached to this testimony.

Q.2 What is the purpose of your testimony in this proceeding?

A.2 I will testify on two areas of concern to BNSF:

- (1) hazardous materials management (hydrogen); and
- (2) biological resources (desert tortoise).

Q.3 Why does BNSF have concerns regarding the Calico Solar Project?

A.3 BNSF is one of two Class 1 railroads operating in California. BNSF's mainline, which is traversed by as many as 80 trains per day, carries interstate commerce from the Ports of Los Angeles and Long Beach to U.S. Midwestern, Southwestern and Eastern markets. The proposed Project would surround both sides of several miles of BNSF's mainline tracks. Accordingly, BNSF has significant concerns that the construction and operation of the Project do not adversely impact BNSF operations or

otherwise impose unacceptable safety risks to BNSF personnel and operations.

The consummation of the Project would require the granting of several licenses and permits from BNSF, which Applicant Calico Solar ("Calico Solar") has requested in a piecemeal fashion over the course of the past year. To date, none of these requested licenses or permits have been granted. Before BNSF can grant such licenses and permits, BNSF must be assured that its significant safety and operational concerns are addressed.

Q.4 What are BNSF's safety and operational concerns in relation to hazardous materials management (hydrogen)?

A.4 Calico Solar's Project certification application seeks authority to emplace up to 34,000 SunCatchers within a 6,215 acre tract that falls on both sides of BNSF's right of way. The SSA calls for the construction of one hydrogen gas production facility to be emplaced on an as-yet-to-be-determined site within the Project. (SSA p. C.5-8.) That single hydrogen gas facility would generate hydrogen gas to power the SunCatchers. The SSA, however, seeks approval for two distinctly different alternative methods to transmit the hydrogen to the SunCatchers.

Under the first alternative, the hydrogen would be transmitted via extensive shallow (approximate 2 ½ foot bgs) subterranean pipelines throughout the Project to the various SunCatchers (the specific emplacement of which was likewise not set forth in the SSA) and would

require boring under and hydrogen gas pipeline emplacement under the mainline.

BNSF's routine maintenance activities involve digging, trenching, excavating and filling areas of the right of way. A hydrogen pipeline located under or near the right of way could be contacted during these activities, posing a safety hazard to employees. Finally, if a derailment were to occur, given the desert sands, train cars could come in contact with the shallow underground pipeline system.

Under the second alternative scenario, hydrogen for the SunCatchers would be generated on-site and would be distributed to the SunCatchers via bottles carried on trucks. SSA p. C.5-8. This would involve individual SunCatchers being supplied from the hydrogen storage tank by trucks. An accident or collision between the hydrogen trucks and another vehicle or train at the at-grade crossing, or an accident on the proposed bridge, could result in significant safety issues.

Due to critical safety concerns, BNSF opposes the transport of hydrogen above or beneath its tracks. BNSF is concerned that hydrogen pipelines passing under or near the mainline track may adversely impact rail operations and create unacceptable safety risks.

Q.5 Have these safety and operational concerns been conveyed to Calico Solar?

A.5 They have. Applicant Calico Solar recently has represented that if it seeks to implement the first alternative and transmit the hydrogen through shallow, subterranean pipelines, it will produce hydrogen gas on two separate but as yet unidentified sites on the north and south sides of the BNSF Right of Way and thereafter construct two separate hydrogen gas pipeline systems (one northern and one southern) to transport the hydrogen gas to the respective SunCatchers, without going under the mainline.

Q.6 Does this adequately address BNSF's safety and operational concerns regarding this issue?

A.6 Not entirely. If the first alternative is employed, BNSF supports the placement of two separate hydrogen generation facilities, one north and one south of its tracks, and requests that this be incorporated into the Committee's decision on Calico Solar's application as a Condition of Certification.

I am not, however, aware of any site specific studies that address rail operations and safety issues in relation to the hydrogen pipe. Accordingly, if Calico Solar opts to employ the first alternative and use the centralized pipeline system, the appropriate distance of the nearest hydrogen pipelines to the right of way still needs to be determined.

BNSF requests that the Risk Analysis being prepared with respect to hydrogen consider possible derailment scenarios, appropriate mitigation be determined, and the system not be activated until all mitigation is fully implemented. BNSF also requests that should the centralized pipeline system be selected, the exact location of hydrogen pipelines in relation to the signal cable and the right of way be evaluated to ensure the protection of rail infrastructure and operations. In addition, BNSF requests that sensors be required to be placed to detect hydrogen leaks; that mitigation measures such as automatic shut-off valves along the hydrogen pipeline be required; that the Hazardous Business Materials Plan require notification of the railroad of hydrogen releases which could impact rail safety and operations; and that an auto-dialer and/or other notification system be established to promptly notify BNSF of such hydrogen releases.

Q.7 What are BNSF's safety and operational concerns in relation to biological resources (desert tortoise)?

A.7 In a derailment scenario, BNSF workers and emergency response personnel must have full access to BNSF's right of way and the adjacent lands in order to respond to the emergency. Such access will likely require temporary removal of portions of the desert tortoise exclusionary fence that Calico Solar is required to install as part of the Project. BNSF requests that, in the case of derailment or other emergency, Calico Solar

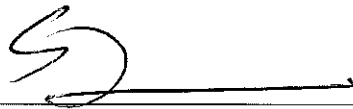
be required to provide BNSF access to the Project site for emergency response as a Condition of Certification. This access may include, among other activities, temporary removal of portions of the desert tortoise exclusionary fencing and the placement of a temporary fence. BNSF also requests that the Condition of Certification require Calico Solar contractors and employees to participate in BNSF's environmental sensitivity training program prior to commencing work at the Project site.

Q.8 Does this complete your direct testimony?

A.8 Yes, it does.

I swear under penalty of perjury that this testimony is true and correct to the best of my knowledge and belief.

Dated: July 29, 2010

A handwritten signature in black ink, consisting of a stylized 'E' followed by a horizontal line that extends to the right.

Edward P. Phillips

Edward Paul Phillips

Curriculum Vitae

As Manager of Environmental Operations for BNSF Railway, Mr. Phillips is responsible for environmental compliance throughout the state of California. A former state and county regulator, firefighter, and educator, Mr. Phillips has had extensive experience with hazardous materials management, emergency response, stormwater protection, air quality, energy conservation, and endangered species.

October 2005 to Present

BNSF Railway

Manager, Environmental Operations

- Responsible for overall environmental compliance within California including Hazardous Materials Business Plans; Industrial Stormwater Pollution Prevention Plans; Spill Prevention Control & Countermeasure Plans; and Facility Response Plans
- Responsible for tracking and developing compliance strategies for all emerging and ongoing regulations including federal, state, regional, and local programs for various agencies
- Responsible for developing and delivering Environmental Awareness Training to encompass all general and specific environmental issues to staff and contractors within California
- Responsible for assisting other departments with compliance issues
- Responsible for providing emergency response and incident management for train operations
- Responsible for providing emergency response training to local Fire Departments

May 2005 to Present

Arkansas Department of Environmental Quality

Enforcement Administrator

- Responsible for enforcing state water code including reviewing Discharge Monitoring Reports and field inspections for compliance with NPDES requirements, writing Significant Non-Compliance (SNC) correspondence, Notices of Violation (NOV), Clean and Abate Orders (CAO), and Cease and Desist Orders (CAD)
- Responsible for calculated penalties to be assessed for non-compliance
- Responsible for initiating enforcement actions against violators

March 2003 to May 2005

Riverside County Environmental Health

Hazardous Materials Management Specialist III

- Responsible for enforcing state health and safety code including conducting inspections of permitted facilities that stored hazardous materials, generated hazardous wastes, and/or operated underground storage tanks
- Responsible for conducting preliminary investigations into illegal activities and writing Administrative Enforcement Orders (AEO) and felony cases against violators
- Responsible for responding to emergencies involving hazardous materials throughout the County of Riverside as part of County Hazardous Materials Emergency Response Team

January 2001 to March 2003

San Manuel Band of Mission Indians

Environmental Coordinator

- Responsible for developing and managing Tribe's environmental program including air, land, cultural and water resources
- Responsible for writing and administering U.S.EPA Grants
- Responsible for assisting other departments with environmental compliance issues

September 2001 to Present

Crest Forest Fire District

Volunteer Firefighter

- Responsible for responding to structure fires, wildland fires, traffic collisions and medical aids

September 1998 to December 2000

Fallbrook High School /Ranchero Middle School

Science Teacher

- Responsible for teaching Life, Earth, and Physical Science to disadvantaged students
- Responsible for managing Science Department Title IX (underserved) funds

January 1998 to August 1998

Bakersfield College

Program Manager

- Responsible for developing program to assist small businesses comply with California Hazardous Waste Law
- Responsible for negotiating agreements with local agencies to provide training to small businesses

Education

Bachelor of Science, Biology 1997, California State University Bakersfield

Certificates

Registered Environmental Manager 2002-2010

Registered Environmental Assessor I 2004-2010

Certified Professional in Erosion and Sediment Control 2008-2010

Certified Professional in Storm Water Quality 2008-2010

CSTI Hazardous Materials Technician 2003-2006

TTCI Railcar Hazardous Materials Technician 2006-2010

CPR/First Responder 2001-2010



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APPLICATION FOR CERTIFICATION

For the CALICO SOLAR (Formerly SES Solar One)

Docket No. 08-AFC-13

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(Revised 7/12/10)**

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DECLARATION OF SERVICE

I, Ani Seferyan, declare that on July 29, 2010, I served and filed copies of the attached
PREPARED DIRECT TESTIMONY OF EDWARD R. PHILLIPS BNSF RAILWAY COMPANY

dated July 29, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of
the most recent Proof of Service list, located on the web page for this project at:
[\[www.energy.ca.gov/sitingcases/solarone\]](http://www.energy.ca.gov/sitingcases/solarone).

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and
to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

- sent electronically to all email addresses on the Proof of Service list;
 by personal delivery;
 by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon
fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course
of business; that the envelope was sealed and placed for collection and mailing on that date to those
addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

- sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address
below (*preferred method*);

OR

- depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this
mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.


Ani Seferyan

*indicates change 2