Comment 1 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Matthew
Last Name: Gudorf
Email Address: mgudorf@uci.edu
Affiliation:

Subject: Usless and arbitrary
Comment:

Another rule that can be imposed that just creates an overhead and paperwork nightmare for the end user. More bureaucratic feel good but solve nothing regulation.

Did you know that UC Irvine has SF6 Switches? Its not a bunch of investor owned utilities that have to spend the time, money, and effort to meet these new ridiculous rules its also cash strapped universities that own their own distribution equipment.

I oppose this regulation. Another ridiculous rule that will hurt the economy, drive business out of California, and do nothing to help the environment as there is no better insulator than SF6.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2010-01-23 17:50:59

No Duplicates.

Comment 2 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Fred
Last Name: Paul
Email Address: FredMPaul@eaton.com
Affiliation:

Subject: CARB should Ban SF6 Gas at or below 72-kV
Comment:

I would like to offer the following information in support of the CARB's proposal for tighter limits on Sulfur Hexafluoride (SF6) gas emissions from electrical equipment:

SF6 gas was initially introduced to the electrical industry for its arc quenching and insulation properties in high-voltage circuit breakers. It then evolved as a replacement for oil in lower voltage circuit breakers above 15,000-Volt (15-kV). At 15-kV and below, air replaced oil as an interruption and insulation medium. The next technical development in the late 70's was the advancement of vacuum interruption technology up to 38,000-Volt (38-kV), with air as the insulating medium.

Unfortunately, SF6 gas has found its way into electrical products such as switches, contactors, disconnects, transmission lines, transformers, circuit breakers, substations, and in underground vaults as low as 2400-Volt (2.4-kV).

Many of these products come into the US from other countries. The CARB should take comfort in the knowledge that today, electrical products at or below 72,000-Volt (<72-kV) that do not contain SF6 are commonly available at competitive prices from many electrical equipment manufacturers. Furthermore, the marketplace now has a retrofit product for removing SF6 and replacing it with vegetable oil as an insulator.

Therefore, in the document dated January 7, 2010, "Initial Statement of Reasons", the sentence found in the "Executive Summary", B - Overview, paragraph 7, page 8 of 39: "Despite international research efforts, no equivalent alternative has been identified"; and SECTION – I, Introduction, C – Background, paragraph 4, page 13 of 39: "Despite international research efforts, no equivalent alternative has been identified" are not completely true statements.

In addition to the significant GHG impact, SF6 has another negative attribute. Although non toxic in its natural state, arced SF6 is highly toxic, especially in indoor environments. This condition will result in the event of an electrical failure of the device, thus relegating the remediation to a hazardous materials disposal.

The above should be considered as factors in support of even tighter restrictions on replacement and new installation of electrical equipment containing SF6. CARB should reconsider the

position as stated in the document dated January 7, 2010, “Initial Statement of Reasons”, SECTION – III, Proposed Regulation Development, C – 3, paragraph 1, page 21 of 39: “Staff evaluated the option of establishing performance standards and mandating the replacement on medium voltage (<69) kilovolt (kV) switchgear. Staff also evaluated requiring establishing standards for new equipment. However, by choosing instead to set a less-prescriptive, maximum allowable emissions rate to meet the GHG emission reduction goal, affected entities would be motivated to purchase the lowest emitting GIS equipment.”

It is important the CARB address issues regarding the replacement of any existing equipment <72-kV that has reached its maximum operating life, as well as ban the use of SF6 in new equipment installed in commercial and industrial applications at lesser voltages, thus, eliminating the future source of possible emissions versus just reducing the potential for dangerous emissions in existing installations. Viable and extensively available alternatives up to 72-kV exist throughout the industry.

Furthermore, in the document dated January 7, 2010, “Initial Statement of Reasons”, SECTION – I, Introduction, C – Background, paragraph 3, page 12 of 39: “The advantages of using SF6 in electrical switchgear are considerable, primarily because the gas is non-flammable, non-corrosive to internal switchgear components, and its thermal properties make it an excellent arc suppressant.”

The above reasons are no longer valid for electrical equipment <72-kV, where viable and extensively available alternatives exist throughout the industry.

These so-called “considerable advantages” cannot be harmonized with what is stated in the document dated January 7, 2010, “Initial Statement of Reasons”, SECTION – V, Environmental Impacts, B, paragraph 3, page 28 of 39: “While SF6 is inert during normal use, when electrical discharges occur within SF6-filled equipment, toxic by products may be produced which pose a health threat to workers who come into contact with them.”

It is imperative that California continue to be the national – and world - leader in Public Health and Safety, as stated in the document dated January 7, 2010, “Initial Statement of Reasons”, SECTION – II, Statutory Requirements, paragraph 16, page 15 of 39: “The proposed regulation may serve as a model for future federal regulations further reducing GHG emissions from the high global warming potential gas.”

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2010-02-16 07:39:37

No Duplicates.

Comment 3 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Lily
Last Name: Mitchell
Email Address: lmitchell@hanmor.com
Affiliation: SCPPA

Subject: Comments of SCPPA on proposed SF6 regulation
Comment:

```
Please find attached the submission of the Southern California
Public Power Authority on the proposed SF6 regulation.
```

Attachment: www.arb.ca.gov/lists/sf6elec10/5-300226001lmm02161001_sf6_submission_final.pdf

Original File Name: 300226001lmm02161001 SF6 submission final.pdf

Date and Time Comment Was Submitted: 2010-02-16 19:47:19

No Duplicates.

Comment 4 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Eric
Last Name: Hsieh
Email Address: eric.hsieh@nema.org
Affiliation: NEMA

Subject: NEMA SF6 Task Group Comments
Comment:

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The comments of the SF6 Task Group of the National Electrical
Manufacturers Association are enclosed in the PDF attachment.
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Attachment: www.arb.ca.gov/lists/sf6elec10/6-carb_comments_nema.pdf

Original File Name: CARB Comments_NEMA.pdf

Date and Time Comment Was Submitted: 2010-02-19 06:38:22

No Duplicates.

Comment 5 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Kyle
Last Name: Davis
Email Address: kyle.l.davis@pacificorp.com
Affiliation: PacifiCorp

Subject: Comments of PacifiCorp regarding proposed SF6 rule
Comment:

```
I am writing to you on behalf of PacifiCorp to provide you with
comments in response to the California Air Resources Board's
("CARB") "Proposed Regulatory Language Subarticle 4. Gas Insulated
Switchgear", dated January 7, 2010.
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Attachment: www.arb.ca.gov/lists/sf6elec10/7-pacificorp-sf6_comments_2010-feb.pdf

Original File Name: PacifiCorp-SF6_comments_2010-Feb.pdf

Date and Time Comment Was Submitted: 2010-02-23 13:55:53

No Duplicates.

Comment 6 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Lily
Last Name: Mitchell
Email Address: lmitchell@hanmor.com
Affiliation: SCPPA

Subject: Further SCPPA comments on SF6 regulation
Comment:

```
Please find attached additional comments by the Southern California
Public Power Authority on the proposed SF6 regulation.
```

Attachment: www.arb.ca.gov/lists/sf6elec10/8-300226001lmm02241001_further_sf6_submission_final.pdf

Original File Name: 300226001lmm02241001_Further_SF6_submission_final.pdf

Date and Time Comment Was Submitted: 2010-02-24 11:49:52

No Duplicates.

Comment 7 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 45 Day.

First Name: Kyle
Last Name: Boudreaux
Email Address: kyle.boudreaux@fpl.com
Affiliation:

Subject: NextEra Energy Resources
Comment:

please see attached

Attachment: www.arb.ca.gov/lists/sf6elec10/11-kyle.pdf

Original File Name: Kyle.pdf

Date and Time Comment Was Submitted: 2010-03-02 09:59:45

No Duplicates.

Comment 1 for Sulfur Hexafluoride Emissions Regulation (sf6elec10). (At Hearing)

First Name: Victor
Last Name: Yamada
Email Address: Non-web submitted comment
Affiliation:

Subject: Southern California Edison Company
Comment:

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please see attached
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Attachment: www.arb.ca.gov/lists/sf6elec10/12-victor.pdf

Original File Name: Victor.pdf

Date and Time Comment Was Submitted: 2010-03-16 10:34:00

No Duplicates.

Comment 2 for Sulfur Hexafluoride Emissions Regulation (sf6elec10). (At Hearing)

First Name: Susie
Last Name: Berlin
Email Address: Non-web submitted comment
Affiliation:

Subject: McCarthy & Berlin, LLP
Comment:

please see attached

Attachment: www.arb.ca.gov/lists/sf6elec10/13-susie.pdf

Original File Name: Susie.pdf

Date and Time Comment Was Submitted: 2010-03-16 10:34:00

No Duplicates.

Comment 1 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 15-1.

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

Comment 2 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 15-1.

First Name: Eric
Last Name: Chung
Email Address: eric.chung@pacificorp.com
Affiliation: PacifiCorp

Subject: Comments regarding "Proposed Regulatory Language Subarticle 4. Gas Insulated Switchgear"
Comment:

```
PacifiCorp respectfully submits these comments as requested in
response to the updates to the California Air Resources Board's
("CARB") "Proposed Regulatory Language Subarticle 4. Gas Insulated
Switchgear", dated September 9, 2010. We appreciate the opportunity
to submit our comments, which replaces our previous submission
dated February 22, 2010.

Regards,

Eric Chung
Director, Environmental Policy & Strategy
PacifiCorp
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Attachment: www.arb.ca.gov/lists/sf6elec10/16-pacificorp-sf6_comments_2010-sep_final.pdf

Original File Name: PacifiCorp-SF6_comments_2010-Sep_FINAL.pdf

Date and Time Comment Was Submitted: 2010-09-24 11:46:37

No Duplicates.

Comment 3 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 15-1.

First Name: Lily
Last Name: Mitchell
Email Address: lmitchell@hanmor.com
Affiliation: SCPPA

Subject: SCPPA comments on SF6 regulation
Comment:

```
SCPPA comments attached.
```

Attachment: www.arb.ca.gov/lists/sf6elec10/18-300226001lmm09241001_15-day_sf6_comments.pdf

Original File Name: 300226001lmm09241001 15-day SF6 comments.pdf

Date and Time Comment Was Submitted: 2010-09-24 16:50:35

No Duplicates.

Comment 4 for Sulfur Hexafluoride Emissions Regulation (sf6elec10) - 15-1.

First Name: Lily
Last Name: Mitchell
Email Address: lmitchell@hanmor.com
Affiliation: Utilities Group

Subject: Utilities Group comments on SF6 regulation
Comment:

```
Utilities Group comments attached.
```

Attachment: www.arb.ca.gov/lists/sf6elec10/19-sf6_utilities_group_letter_092410.pdf

Original File Name: SF6 Utilities Group Letter 092410.pdf

Date and Time Comment Was Submitted: 2010-09-24 16:50:35

No Duplicates.