

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Thomas J Bradish
Organization:	Reliant Energy
Telephone:	724-597-8593
Email:	tbradish@reliant.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input checked="" type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

If we do not develop a focused training standard we are destined to repeat August 14.

## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

### Comments

I have checked all of the above because all will need to have some level of knowledge around the operation of the grid. The key phrase is "some level of knowledge". A one size fits all approach would be over kill and doomed to failure. The training requirements should fit the knowledge requirement of the position.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

I believe that regional differences should be handled in the content and design of the entities training program.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

My guess is that it will increase our staffing requirement in order to send dispatchers to training. It will certainly mean additional record keeping.

**Comments**



## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Can this reporting be handled similar to the CEU tracking for NERC certification? It will have to be tracked annually since most of the requirements will be annual requirements.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

None

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Karl A Bryan
Organization:	US Army Corps of Engineers
Telephone:	503-808-3894
Email:	karl.a.bryan@usace.army.mil
<b>NERC Region</b>	<b>Registered Ballot Body Segment</b>
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

I don't think you are going far enough with the requirement for training. I am constantly amazed at how generation operators do not understand where they fit into the big picture as far as system reliability issues are concerned. Even the little task of voltage support is poorly understood by our operators.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

I feel that various levels of certification should be developed, similar to engineer in training to registered professional engineer.

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

In order for national certification to mean anything, there should be no region specific differences for earning certification.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

It takes manpower off of the workbench in order to go through a certification training process. I would suspect that there will be some staff that require more remedial training than others. With the present shortage of staff at most facilities, it will be difficult to accomplish all of the required training in a timely manner without increasing staffing.

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

The training programs should be accredited in the same manner and frequency as utilized in higher education. Nationally recognized auditing and once every 4 or 5 year recertification.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:        **Do** enter text only, with no formatting or styles added.  
              **Do** use punctuation and capitalization as needed (except quotations).  
              **Do** use more than one form if responses do not fit in the spaces provided.  
              **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	John Neagle
Organization:	Associated Electric Cooperative Inc.
Telephone:	(417) 885-9233
Email:	jneagle@aeci.org
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input checked="" type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	

**Comment Form – Proposed System Personnel Training Standard**

---

Group Comments (Complete this page if comments are from a group.)

**Group Name:**

**Lead Contact:**

**Contact Organization:**

**Contact Segment:**

**Contact Telephone:**

**Contact Email:**

<b>Additional Member Name</b>	<b>Additional Member Organization</b>	<b>Region*</b>	<b>Segment*</b>

\* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

Associated Electric Cooperative Inc. agrees with the general concept of a training standard for the purpose of promoting reliability. The SAR does not contain sufficient detail to determine whether or not Associated would agree with a standard based on this SAR.



## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

### Comments

Associated Electric Cooperative Inc. suggests it is inappropriate and unnecessary for a training standard resulting from this SAR to apply to electric utility industry individuals other than those directly responsible for the operation of the interconnected system, i.e. control center personnel.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Associated Electric Cooperative Inc. suggests a training standard should address the desired outcomes and should not specify the methods to achieve those outcomes. The SAR does not contain sufficient detail to determine the SAR drafting team's intent, but it appears the resulting standard would be quite prescriptive in many areas. Any elements currently included in the SAR that prescribe facilities, tools, materials, funding, staffing levels, methods, etc. should be deleted. These details are best determined by and should be left to the discretion of the individual company.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

Given the limited detail in the SAR, Associated Electric Cooperative Inc. does not see a need for regional differences.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

Associated Electric Cooperative Inc. responds to this question with a qualified no. As stated above, the SAR does not contain sufficient detail to positively determine required staffing.

### **Comments**

If the standard developed from this SAR is applicable to all the entities indicated on Page SAR-2, a 15 - 20% staff increase in affected areas could conceivably be necessary for Associated Electric Cooperative Inc. to comply. It is unlikely Associated's customers would appreciate or understand rate increases to fund such a training program that would do nothing to decrease the number of blackouts they have experienced (0).

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Associated Electric Cooperative Inc. suggests an annual self-certification to the appropriate Regional Reliability Council.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

### Comments

Associated Electric Cooperative Inc. reiterates its comments above that a training standard should address the desired outcomes and should not detail the methods to achieve those outcomes. Prescriptive requirements for facilities, tools, materials, funding, staffing levels, methods, etc. should not be included. These details are best determined by and should be left to the discretion of the individual company.

Associated Electric Cooperative Inc. respectfully requests the Standards Drafting Team fully and carefully consider the industry's comments submitted in response to publication of the System Operator Certification Program Administrative Guidelines. Special attention should be given to the comments regarding the number of training hours (CEH) required.

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Howard F. Rulf
Organization:	We Energies
Telephone:	262-574-6046
Email:	Howard.Rulf@we-energies.com
<b>NERC Region</b>	<b>Registered Ballot Body Segment</b>
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input checked="" type="checkbox"/> 4 - Transmission-dependent Utilities
<input checked="" type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	





## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Every three years.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

All training should not be required to be in the NERC CEH program.



**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:	James Stanton	
Organization:	Calpine Midwest Power	
Telephone:	832-476-4453	
Email:	jstanton@calpine.com	
NERC Region		Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/>	1 - Transmission Owners
<input checked="" type="checkbox"/> ECAR	<input type="checkbox"/>	2 - RTOs, ISOs, Regional Reliability Councils
<input checked="" type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	3 - Load-serving Entities
<input checked="" type="checkbox"/> MAAC	<input checked="" type="checkbox"/>	4 - Transmission-dependent Utilities
<input checked="" type="checkbox"/> MAIN	<input checked="" type="checkbox"/>	5 - Electric Generators
<input checked="" type="checkbox"/> MAPP	<input checked="" type="checkbox"/>	6 - Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	7 - Large Electricity End Users
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	8 - Small Electricity End Users
<input checked="" type="checkbox"/> SPP	<input type="checkbox"/>	9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC		
<input type="checkbox"/> NA - Not Applicable		



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

I believe there is a reliability need for a training standard, though not necessarily the one being proposed.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

**Indicate which of the following you believe the proposed standard should apply:**

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

**Comments**

The proposed Standard is overly broad and ambiguous, and should not uniformly apply to anyone.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

The content is inadequate not because of a lack of elements but because of the ambiguity of what it is intended to do. A Training Standard cannot be a "one size fits all" approach for functions as disparate as Reliability Authorities and Purchasing and Selling entities.

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

ERCOT's system, for example, does not easily fit into the NERC proposed functional model and the training standard should recognize the unique regional differences found in the ERCOT Region.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

It might be doable if as many control areas as possible were consolidated, which would mean fewer people to train. If existing control areas continue to exist in their current number, then no, a training standard could not be implemented at current staffing levels.

**Comments**



**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

**Comments**

The training program should be reviewed often enough to insure it remains aligned with current markets /regional design and adjust, if needed, to capture future market and reliabilty training needs.

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

The statement, Any person with access to a control room should be trained, from the blackout report, should be clarified. What kind of control room? Is this a control area? An RTO control room? A power plant control room?

Also, there are essential pieces missing from the proposal, such as what are the goals of the training program? It is quite exhaustive in the elements of a training program but fails to explain what objectives are to be met. Beyond the broad goal of promoting the reliability of the Interconnections, what subject matter is envisioned to fall into the recommended elements that would be applicable to all the Reliability Functions to which it is intended to apply? A good example is simulator training. Simulator training on what?

The current proposal is so overly broad as to be unworkable. More explanation of the goals of the training program and the applicability to the Reliability Functions must be presented.

This is too important a subject to apply the broad brush of a one-size-fits-all Training Standard.

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
Email:		
NERC Region	Registered Ballot Body Segment	
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners	
<input type="checkbox"/> ECAR	<input checked="" type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils	
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities	
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities	
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators	
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers	
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users	
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users	
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities	
<input type="checkbox"/> WECC		
<input type="checkbox"/> NA - Not Applicable		



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

There needs to be flexibility to tailor the training to the individual involved.

Requirements should be limited to Certification Standards. NERC is being overly descriptive of "how to" conduct training rather than achieving specific results. NERC Standards should be "object oriented", that is, specify what the final requirements are. Prescribing how each entity goes about to achieve these objectives is beyond NERC's mandate.

Limit this to only Control Room Operating staff that actually "operate" the system.

## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

### Comments

NPCC believes that anyone engaged in direct operating/control activity for the Bulk Power System should be properly qualified/certified.

An alternative approach to the above also discussed might also involve only requiring NERC Certifiable Functions..i.e. Reliability Authority(RC), Balancing Authority, Interchange Authority, Transmission Operator to adhere to the resultant standard.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Certification is a control room operator issue.

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

Administrative duties related to audit. Additional Operating Room personnel due to out of control room activities.

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

### **Question 6: How and how often should training programs be reviewed for compliance with the standard?**

NPCC believes the training programs should be reviewed internally and self certified for compliance as required or at least yearly, with audits being conducted at least once every three years.

### **Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Ken Goldsmith
Organization:	Alliant Energy
Telephone:	319-786-4167
Email:	kengoldsmith@alliantenergy.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input checked="" type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

I believe it will require more personnel dedicated for the training function alone, which may be difficult for the smaller organizations.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

Somewhere the standard should encourage/recommend that the Regions should form Training Groups to promote uniform training throughout the regions. This will help promote a better understanding of operations, by all the parties.

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Anthony M. Giasi
Organization:	Consolidated Edison Co. of NY, System Operation Department
Telephone:	212-580-6772
Email:	giasia@coned.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	





## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

However, the training standard must be reasonable and explicit, it must be specific as to which personnel in each entity require training, it must be specific as to the different training protocols not only for the personnel within each entity, but also for the different entities, it must be achievable in a reasonable time frame for a reasonable cost, and not subject to compliance for a reasonable period of time, say three years to allow for formation and implementation.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Owner</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

Do the proposed training standards apply to non-registered entities to whom actions or operations are delegated by a registered entity? If yes, why. If not, then do any training standards apply?

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

Qualification testing; Real-time assessments to verify training carried over to the job; Missing the link to competency of existing system operators; Needs to identify the qualifications for the system operator to first sit in the chair; Needs to address resources needed to accomplish the training; Need a training shift for system operators (adequate time dedicated to training)

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Companies should have plans in place to take a system operator from an initial competency level up to an expert level, however this is not NERC's responsibility.

### **Comments**

What is written is 'process-oriented' and is not sufficient in detail for all system personnel positions – the scope is too broad (covering too many positions) and the level is too high level (doesn't identify what positions are included in the category called 'system personnel')– a SAR targeted for the individual types of positions (such as a SAR just for the operating authority positions) would be more helpful.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

A reasonable standard is needed, however, additional training personnel, training infrastructure, training documentation, training funding, etc would be required to train all "system personnel" as indicated in the SAR.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Bi-annual basis.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

### Comments

Match the definitions on the SAR with the definitions in the Glossary posted with Version 0. The standard needs to be written so the rules are objective, clear and well-understood by all end-users as well as auditors; Need to define what is meant by 'system personnel'; Need to define terms used such as 'job task analysis' and 'competency-based'.



**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:        **Do** enter text only, with no formatting or styles added.  
               **Do** use punctuation and capitalization as needed (except quotations).  
               **Do** use more than one form if responses do not fit in the spaces provided.  
               **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
               **Do not** use numbering or bullets in any data field.  
               **Do not** use quotation marks in any data field.  
               **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Kathleen Davis
Organization:	Tennessee Valley Authority
Telephone:	751-6172
Email:	kadavis@tva.gov
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

A training standard is needed to ensure we have competent personnel who can safely and reliably operate, maintain, and improve the performance of the electric power system.

Training for the system operators is critical to the industry as a whole. We are at the beginning stages of where we must go in the future to reassure ourselves and the public at large that the events of August 14th 2003 will not be repeated. For the NERC organization this should be at a minimum, in it's top three priorities..

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

One basic tenet or requirement that should be stated is the use of a systematic approach (SAT), based on job performance requirements, to guide the training of system personnel.

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

You should not specify job and task analysis under 1.b. A needs assessment can be satisfied in several ways from a simple needs or job analysis up to a full blown job and task analysis.

There should only be a requirement for documentation and record keeping under 1.i. Administration. A learning management system is one means to document and track training.

If hours are specified under initial training requirements they should reflect only the minimum acceptable number of hours for training. If a company does a needs analysis to determine job requirements the time to conduct the initial training program will vary based on the components of the job and the necessary elements to be trained on.

Progression training and cross training are not consistent with the intent of a continuing training program. A continuing training program is intended to refresh and improve the application of knowledge and job-related skills for the job the trainee works or is qualified to work.

Simulation training is a platform or method to provide initial and continuing training. I don't feel that it should be addressed separately.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

From an overall framework the standard should be the same however we must recognize the special needs and the special circumstance of individual regions. One size does not always fit all.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

When you consider the additional training requirements that will probably come out of the standard I foresee a need for additional staffing in both the system personnel side of the business and on the training side of the business.

We need an industry standard for staffing levels that applies across the board for the functional responsibility.

**Comments**

It would be prudent to develop a training standard that stipulates the minimum requirements to satisfy training for system personnel, versus taking the approach to identify the best approach. This will minimize the impact on the staffing levels for both training and staff personnel.



**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Every 4 years

**Comments**

A mandatory compliance type review should be conducted every 4 years. This approach is consistent with similar utility training requirements. Each utility/entity should conduct self-assessments on a more frequent time frame. This approach will minimize the impact on NERC and the industry when trying to audit training for compliance.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Gerald Rheault
Organization:	Manitoba Hydro
Telephone:	204-487-5423
Email:	gnrheault@hydro.mb.ca
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input checked="" type="checkbox"/> MAPP	<input checked="" type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

### Comments

For the Generator Operator category, Manitoba Hydro believes that this Standard should apply for a generator operator at the generation company operations or dispatch center but not to an operator at the thermal or hydraulic plant.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

Manitoba Hydro foresees requiring at least 2 additional staff; one administrative representative to help maintain the documentation and for record keeping and at least one instructional designer to create/revise the training courses. This is an estimate only and is based on a control centre perspective only. The total impact on Manitoba Hydro may be more extensive depending on the finalized training requirements and what options exist to develop and target the requisite training

### **Comments**

Program planning and training development is both time and staff intensive. Manitoba Hydro currently has difficulty maintaining its trainee program and ongoing staff training with the existing staff. Additional staff will be required to implement any new requirements to the existing training program.

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

every three years.

### **Comments**

Each entity training program should be reviewed as part of the entity operational audit which is presently part of the NERC Compliance program. In the MAPP /MRO region this presently occurs every three years. Any program which was judged satisfactory at the last operational audit should not deteriorate to such a degree that the system is a threat to reliability in any three year window.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
Email:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/>	2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/>	3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/>	4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/>	5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/>	6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/>	7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/>	8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/>	9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC		
<input type="checkbox"/> NA - Not Applicable		



## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

Those entities operating in real time should have training requirements.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Under Item 1, i. Administration, a Learning Management System is a "how" rather than a "what" and should be eliminated. Item 3, Continuous training requirements, is poorly defined. It mixes topics, categories and methods of training, and many are subsets of others. The list is not properly defined or organized. Item 4, Simulation training: Should identify types, but not prescribe any specific method of simulation or simulator. Item 7, Training resources and staff, f. Funding: funding should not be part of the standard.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

At a minimum, we would need additional training personnel. It is also possible that training requirements would be so great as to require additional operating personnel.

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Self report via comprehensive questionnaire annually or every two years. Training audit team visit every 5 years.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Peter Henderson
Organization:	IESO
Telephone:	905 855 6258
Email:	peter.henderson@ieso.ca
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input checked="" type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	





## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

There is a need for a training standard and we applaud the intent. Such a standard should be the place for all training requirements (presently, training requirements are found in several locations), for the appropriate functions. However, the proposed standard appears to apply a "one size fits all" approach to every authority and function. If this is the case, then this approach is likely to be unrealistic. It should be clear as to which functions should be certified versus having taken accredited courses. Also, clarity is needed that there will be different types of certification, rather than just NERC Operator Certification.

NERC needs to better define the Scope of this standard. Is the intent of the standard to measure compliance of the the training of (reliability entity) personnel regarding NERC Reliability Standards, or is the standard meant to measure compliance of all Training Programs? If the intent is the former, then the question would be ,is there enough material to really test ?, since some of the NERC standards applying to owners for example only require communications of data. If the intent is the latter, then the question would be ,is NERC the right organization to evaluate in-house training programs?, given the diversity of operating approaches used in North America. In this case, some programs are probably better evaluated by those closer to the needs and responsibilities of the individual organization.

## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

### Comments

Where we indicated "No" above, does not imply that there should not be training. Support staff and other staff (PA, RP, TSP, GOp, etc) or operators not required to be certified should be able to meet their obligations by participating in NERC continuing education. Others (DPs, PSE, LSE, etc) may be trained on a localized basis.

TSP is listed twice. Was there supposed to be some other entity or is it a duplication?

The industry needs a little more definition and clarity on who is the functional entity (IA, RA, PA, etc.)

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

There are two conflicting questions. The training program requirements are more than adequate (and may not be necessary for some training programs).

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Again, if the approach is "one size fits all", this will cause problems. What type of emergency (or situational awareness, or simulator) training should PSE, IA or PA participate in?

On the other hand, if the intention is to have different courses/certification streamlined for each involved function, then we can understand the approach. However, not all of the functions listed in Q2 should be part of this standard. See comments on Q2.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

.

### **Comments**

There will be site-to-site differences. There would be some regional differences in content and topics, but there should be no regional differences in general training requirements. Some of the NERC functional definitions need more details (who is the TO, IA, RA, etc.).

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

Each organization would have different requirements. In general, there would likely be additional staff required in many of the organizations to meet this standard (to maintain the program, to coordinate training, and to provide relief for staff to participate in training, etc.) In addition, each organization, subject to this standard, would incur start-up costs associated with developing the process. A simulator requirement would add workload (setup, maintenance and running scenarios),etc. The extent of increased resourcing can not be determined until the details of the standard are available.

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

The training programs should be reviewed internally and self certified for compliance as required or at least yearly, with audits being conducted at least once every three years.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

### Comments

Again, the "one-size-fits-all" approach does not appear to be justified. If an operator or authority does not need to be certified, their training requirements should be reduced. A continuing education with some focus on recommended topics (that could be tailored locally) would be more appropriate and would relieve much of the administrative burden for non-certified entities.

It might be better if this standard applies (for now) only to those entities that must be certified.



**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	William J. Smith
Organization:	Allegheny Power
Telephone:	(724) 838-6552
Email:	wsmith1@alleghenypower.com
<b>NERC Region</b>	<b>Registered Ballot Body Segment</b>
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input checked="" type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

**Indicate which of the following you believe the proposed standard should apply:**

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

In item 3 - Continuous training requirements (topics and hours), parts b. Progression training and c. Cross training goes beyond training requirements. These two parts could infringe on Corporate Policy. Part i. Team training should be a desire or suggestion rather than a requirement. In item 1, part c should be excluded since it is just the physical representation of parts a and b.

**Comments**

Parts f, g, h, and j should be included in 3.a. as part of the Annual training requirements.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

**Comments**

Staffing levels can not be predicted until the requirements are specified. If this proposed standard mandates the hours required, this question can't be answered until we know the required hours.



**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

**Comments**

Training Programs should be reviewed annually by the responsible staff. Entities should be required to Self-Certify annually. Every two to three years, the entity should undergo an on-site audit.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Michael C. Calimano
Organization:	New York Independent System Operator
Telephone:	518-356-6129
Email:	mcalimano@nyiso.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input checked="" type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

**Comments**

The standard should be initially developed to support only those personnel who are required to be NERC certified. Once the standards have been established and fully implemented at that level, expansion of the target audience should be examined.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Several items need clarification:

The distinction between job related OJT, Cross training, and progression training.

The distinction between situational awareness and system awareness.

The distinction between "learning management system" and Training Plan/Training Schedule/Progress Assessment/Documentation/Record Retention.

Item 7f should be deleted as redundant. It is included in 6 and 7 a-c.

Item 8b should be deleted as redundant. It is part of 8a.

It would make more sense to more explicitly link item 1f "program design" with item 8a "Adheres to the NERC Continuing Education program criteria".

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

In the case of most organizations there will be a substantial operating staff increase required to provide operators with sufficient training time (6 crew shift rotations in place of 4 and 5 crew shift rotations). There will be an almost universal need to create or increase the size of training staffs to conduct continual Job Task Analysis, develop training modules for all tasks, continually validate and verify of individual training modules, and maintain of the "learning management system" (training plans/training schedules/progress assessment/documentation/records retention - all on an individual basis).

### **Comments**

This standard is being created to rectify the absence of existing staff levels sufficient to meet the training needs of system operators. If there were sufficient staffing, there would not be need for this standard.

Operating or training staffing levels should be dictated as part of the standard. The individual entity should have the flexibility to determine the most effective mechanism to meet their particular training needs. Face-to-face training options require different staffing levels than a full e-learning approach.

## **Comment Form – Proposed System Personnel Training Standard**

---

### **Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Full training audit compliance should be included in the normal sequence of NERC functional organization audits.

Compliance should be phased in due to the magnitude of the staffing and program development needs.

### **Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
Email:		
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/>	2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/>	3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/>	4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/>	5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/>	6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/>	7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/>	8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/>	9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC		
<input type="checkbox"/> NA - Not Applicable		



## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

There is a need for a training standard and we applaud the intent. Such a standard should be the single location for all training requirements (presently training requirements are found in several locations) for the appropriate functions. However, the proposed standard appears to apply a "one size fits all" approach to every authority and function. If this is the case, then this approach is likely to be unrealistic. It should be clear as to which functions should be certified versus having taken accredited courses. Also, clarity is needed that there will be different types of certification rather than just NERC Operator Certification.

NERC needs to better define the Scope of this standard. Is the intent of the standard to measure compliance of the the training of (reliability entity) personnel regarding NERC Reliability Standards, or is the standard meant to measure compliance of all Training Programs? If the intent is the former, then the question is , is there enough material to really test ?, since some of the NERC standards applying to owners for example only require communications of data. If the intent is the latter, then the question is, is NERC the right organization to evaluate in-house training programs? given the diversity of operating approaches used in North America. In this case, the some programs are probably better evaluated by those closer to the needs and responsibilities of the individual organization.



## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

### Comments

Support staff and other operators not required to be certified should be able to meet their obligations by participating in NERC continuing education.

TSP is listed twice. Was there supposed to be some other entity?

The industry needs a little more definition and clarity on who is the functional entity (IA, RA, PA, etc.)

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

There are two conflicting questions. The training program requirements are more than adequate (and may not be necessary for some training programs).

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Again, the one size fits all causes problems. What type of emergency (or situational awareness or simulator) training should PSE, IA or Planning Authority participate? As another example, why do all these entities need to perform independent JTAs when it's likely something will need to be created at the NERC level to review the JTAs (unless the intent is to check compliance by seeing if there is a document called "JTA" as opposed to a thoughtful analysis).

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

.

### **Comments**

There will be site-to-site differences. There would be some regional differences in content and topics, but there should be no regional differences in general training requirements. Some of the NERC functional definitions need more detail (who is the transmission operator, interchange authority, reliability authority, etc.).

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

Each location would have different requirements. In general, there would likely be an additional person needed for every 5-10 people subject to this standard (to maintain the program, coordination training and provide relief for workers to participate in training, etc.). In addition, each organization subject to this standard would need a person for each occupation (for perhaps a year) to develop the program and get it started. A simulator requirement would add workload (setup, maintenance and running scenarios).

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

**Comments**

Every 3-5 years as part of normal compliance review. The organization's ability to meet the other NERC standards is a measure of the success of their training program.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

### Comments

Again, the one-size-fits-all approach does not appear to be justified. If an operator or authority does not need to be certified, their training requirements should be less. Continuing education with some focus on recommended topics that could be tailored locally would be valuable and would relieve much of the administrative burden.

It might be better if this standard applied (for now) only to those entities that must be certified. Training of everyone is important and necessary, but consider the administration if NERC required that each RRC check every generator operator and purchasing selling entity training records versus this standard. If the industry agrees that Generator Operators and others need to be certified then apply the standard. Again, training programs are probably better evaluated locally.

A continuing education requirement with some in a set of approved topics may be more appropriate for non-certified entities.

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Raj Rana - Coordinator
Organization:	AEP
Telephone:	614-716-2359
Email:	raj_rana@AEP.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input checked="" type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	





## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

### Question 2: Regarding the applicability of the SAR:

Indicate which of the following you believe the proposed standard should apply:

<b>Reliability Authority/Coordinator</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Balancing Authority</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Interchange Authority</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Planning Authority</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Resource Planner</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Transmission Service Provider</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Transmission Planner</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Transmission Service Provider</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Transmission Owner</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Transmission Operator</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Distribution Provider</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Generator Owner</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Generator Operator</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Purchasing-Selling Entity</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Market Operator</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Load-Serving Entity</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No

### Comments

There should be a baseline competency for each Functional model entity listed above. However, recognizing that the baseline competency varies by entity class, therefore it can't be a "one size fits all" concept. The Standard should consider this factor and be flexible to the varying needs of the intended entity class

The training needs and requirements for a RA/RC and TOP differ from that of a BA or IA. The standard should be clear on that point and have different requirements for each of the entities. An IA should not have to have staff with the same knowledge and expertise as a RA/RC.

The Standard should only include the entities checked above. Additionally, the Standard should not cover management.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

The Standard needs to define the baseline competencies of the training program individually for each Functional model entity listed above, as they have different needs and requirements. Also, the Standard needs to define the essential elements of a training program individually for the RA/RC, BA, IA, and TOP, as they each have different needs and requirements.

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

5.a.i: The Standard should target just the RA/RC, BA, IA, and TOP and their support staff. The standard should not apply to all functional entities in the Functional Model nor to management.

6.a and 6.b: Delete all of 6.a and 6.b. The Standard should not dictate staffing levels. This is a business decision. The standard may influence staffing levels via the requirement for the amount of annual training, which is OK, but it should not dictate staffing levels by saying you need x staff for a system operator shift, etc. An entity may need no training staff if they decide to outsource 100% of their training needs.

7.a: Facilities. We question the wisdom of a NERC Standard dictating facility requirements for training, other than to state that adequate facilities need to be provided. Depending upon how an entity decides to provide the required training, they may not need much in the way of physical training facilities, i.e. if they decide to outsource all their training and send their staff to a vendor's training facilities. We would agree that it is appropriate for inclusion in a Standard to specify some boundaries/requirements in regard to how training should be facilitated or proctored, but we are not sure if that is what is meant by this bullet point on "Facilities."

7.f: Delete Funding. It is inappropriate for a NERC Reliability Standard to dictate a certain level of funding. Funding is not a proper measure of a Standard, performance is.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

### **Comments**

However, some of the Regions and RTOs have separate training requirements for their members, which may or may not go beyond those proposed by this Standard. It is our belief that Regions and/or RTOs should be allowed to have more stringent requirements if they so choose, but should not be allowed or granted exceptions from this proposed NERC Standard if they desire weaker requirements. Further, we encourage the Regions and RTOs that have additional training requirements, to structure their requirements such that credit hours counted towards meeting their requirements could also count toward meeting the proposed NERC Standard requirements. However, we would be opposed to diluting the proposed NERC Standard in order to meet a Region's or RTO's lesser requirements. To clarify by example, if the proposed NERC Standard required 32 hours of emergency training and a Region or RTO required their members to have 50 hours of emergency training, we would want the Region and RTO to structure their requirements such that once completing the Region/RTO's 50 hours of emergency training, that 32 hours of that training also met the requirements of the proposed NERC Standard regarding emergency training. That is, the method of determining what is required in order to officially count an hour as a credit towards meeting the Region/RTO requirement needs to be at least as strict as the NERC requirement for what counts as an hour of training.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

### **Comments**

For AEP, yes, I believe we can implement the proposed standard with our existing staffing levels. However, that is because we have already increased our staffing since the August 2003 Blackout, specifically to allow for more training. It would be inappropriate for us to speculate for the rest of the industry.

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

**Comments**

It should be similar to policies today. Specifically, annual self-certification and then as part of on-site audits every three years.



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Theodore G. Pappas
Organization:	New York State Reliability Council
Telephone:	516-545-4011
Email:	tpappas@service.lipower.org
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input checked="" type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

The training should be broken into three segments. The first should be certification training or that training needed to maintain certification. This would be applicable to the RA, BA, IA, Transmission Operator and possibly the Market Operator. In other words control room operator training. The second segment should be for those not directly involved in the operation of the power system. This would apply to the Planning Authority, Resource Planner and Transmission Planner. The third segment should be for generator operators and would cover items such as interconnections, VAR flow, relaying, etc so that these operators can develop an understanding of the working of the power system and their impact on it.

The standard should define the training subjects, total hours and, for continued education, the frequency. Flexibility is key so defining specific hours to each subject is not appropriate.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

**Indicate which of the following you believe the proposed standard should apply:**

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Much of the training is inappropriate for people not directly involved in operations or planning such as certain levels of management or support staff.

**Comments**

The training program should not be so rigid that a training group is required. Senior staff should be capable of providing the training.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

**Comments**



**Comment Form – Proposed System Personnel Training Standard**

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

**Comments**

The response depends on the final product. If it is a very formal and rigid plan, similar to the nuclear industry, additional staff will be required.

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

The program should be self certified for compliance with audits on a biannual basis.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:       **Do** enter text only, with no formatting or styles added.  
           **Do** use punctuation and capitalization as needed (except quotations).  
           **Do** use more than one form if responses do not fit in the spaces provided.  
           **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
           **Do not** use numbering or bullets in any data field.  
           **Do not** use quotation marks in any data field.  
           **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Alan Gale
Organization:	City of Tallahassee
Telephone:	(850) 891-3025
Email:	galea@talgov.com
<b>NERC Region</b>	<b>Registered Ballot Body Segment</b>
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input checked="" type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	



## Comment Form – Proposed System Personnel Training Standard

---

### Background Information:

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

Although the industry has survived without one for several years, the investigation of the August 14<sup>th</sup> blackout has pretty much dictated that this be yes.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**



## Comment Form – Proposed System Personnel Training Standard

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

Certification preparation

Progression Training

Learning management system (LMS)

Number of hours

Advanced system operations training

### **Comments**

Certification Preparation - Each candidate must prepare for the exam and the measure is passing the test. A formal program to say what needs to be trained on before you can take the test is unnecessary. Would this preclude an individual from taking the test on his own, being hired, and then be non-compliant because he did not complete the "certification preparation" training but yet is certified?

Progression Training - The training requirements for a company to advance an employee should be dictated by that company. The reliability of the grid should address the position, not the advancement to that position. If the "higher" position has additional training requirements, address those requirements, not what is needed to move up to that position.

LMS - What is this intended to be? I do not recall seeing this in a list of definitions. Is this a "buzz word" that a particular vendor uses in describing their system? What would be in it that would not fall under Documentation or Record Retention?

## Comment Form – Proposed System Personnel Training Standard

---

Number of hours - This contradicts the "Competency-based" objectives. Is the goal competent operators or having enough hours. You can have one with or without the other. Since this SAR does not address CEH's or Certification maintenance a specific number of hours would be easier to budget for, but may not yield the intended reliable operations.

Advanced system operations training - How advanced is this intended to be? How much greater than basic? How much more "reliable" than "reliable"? The Detailed Description states "The goal would be to promote the reliability of the Interconnection through the setting of appropriate MINIMUM training requirements for system personnel." Having advanced training sounds like more than the minimum requirements.

## Comment Form – Proposed System Personnel Training Standard

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

Minimum standards should be minimum standards. If a region needs something beyond that , it should become a regional requirement.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

- We anticipate that at least 2 additional "trainers" will be needed. In addition to the additional work load to support the training, and the research, and the administration required to become a NERC Certified CEH provider, the qualifications of these personnel is not yet known. There is no clarification as to what "competent in both knowledge of the subject and instructional capabilities" really means.

These words seem to lead to the conclusion that we will have to hire outside agencies of ex-utility workers that have become trainers.

- Additional System Operators will be needed to adequately support the targeted hours and still be able to cover minimum vacation and sick time.

- Additional trainers and Operators will be needed each year to satisfy Item 6 "Staffing level adequacy needed to improve the quality and quantity of training." This statement also seems to go beyond the goal of setting minimum standards. It also goes beyond the Purpose/Industry need of "adequate". We will need more and more every year?

**Comments**

## **Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Reviews should be consistent with other standards.

**Comments**

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

Comments

5a. "support staff" needs to be clarified. If the position does not need to be certified, why do they need to fall under this requirement. Are we saying that the training requirements of their respective professional certification (i.e. PE) is inadequate? The same can be said of "management".

8a. Why does a companies training plan have to adhere to the CE program? There is no discussion here of how to maintain certification. In fact it is patently obvious that it was intentionally avoided. Is the goal of this to have quality training or further the CE programs viability? Why can't all the training requirements be in one place?

8b. Approval and revocation processes for what? Being a CEH provider or certifying my training program? Compliance monitoring should be sufficient. Why is a separate process needed? The CEH process already contains a system for approval and revocation, it's duplication here will increase administrative work load unnecessarily.

**Comment Form – Proposed System Personnel Training Standard**

---

**COMMENT FORM  
Proposed System Personnel Training Standard**

This form is to be used to submit comments on the proposed System Personnel Training Standard Authorization Request. Comments must be submitted by **January 07, 2005**. You may submit the completed form by emailing it to: [sarcomm@nerc.com](mailto:sarcomm@nerc.com) with the words “System Personnel Training SAR Comments” in the subject line. If you have questions please contact Mark Ladrow at [mark.ladrow@nerc.net](mailto:mark.ladrow@nerc.net) on 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE.

- DO:        **Do** enter text only, with no formatting or styles added.  
              **Do** use punctuation and capitalization as needed (except quotations).  
              **Do** use more than one form if responses do not fit in the spaces provided.  
              **Do** submit any formatted text or markups in a separate WORD file.

- DO NOT: **Do not** insert tabs or paragraph returns in any data field.  
              **Do not** use numbering or bullets in any data field.  
              **Do not** use quotation marks in any data field.  
              **Do not** submit a response in an unprotected copy of this form.

<b>Individual Commenter Information</b>	
(Complete this page for comments from one organization or individual.)	
Name:	Mark Heimbach
Organization:	PPL Generation
Telephone:	610-774-4571
Email:	maheimbach@pplweb.com
NERC Region	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/> 1 - Transmission Owners
<input type="checkbox"/> ECAR	<input type="checkbox"/> 2 - RTOs, ISOs, Regional Reliability Councils
<input type="checkbox"/> FRCC	<input type="checkbox"/> 3 - Load-serving Entities
<input checked="" type="checkbox"/> MAAC	<input type="checkbox"/> 4 - Transmission-dependent Utilities
<input checked="" type="checkbox"/> MAIN	<input checked="" type="checkbox"/> 5 - Electric Generators
<input type="checkbox"/> MAPP	<input type="checkbox"/> 6 - Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/> 7 - Large Electricity End Users
<input type="checkbox"/> SERC	<input type="checkbox"/> 8 - Small Electricity End Users
<input type="checkbox"/> SPP	<input type="checkbox"/> 9 - Federal, State, Provincial Regulatory or other Government Entities
<input checked="" type="checkbox"/> WECC	
<input type="checkbox"/> NA - Not Applicable	





## **Comment Form – Proposed System Personnel Training Standard**

---

### **Background Information:**

Posted for comments is the first posting of the System Personnel Training Standard Authorization Request. The US-Canada Power System Outage Task Force identified training as one of several initiatives that should be undertaken to enhance the reliability of the bulk interconnected grid. In their report on the August 14, 2003, outage the task force stated “Any person with access to a control room should be trained so that he or she understands the basic functions of the control room ... under any conditions.” This Standard Authorization Request was initiated, in part, to address this recommendation.

The requestor would like to gauge the level of consensus regarding the scope of this SAR and to obtain the input of the industry prior to determining the final scope and requirements of the SAR. Accordingly, your comments included on this form, emailed with the subject “System Personnel Training SAR Comments” by January 07, 2005, would be appreciated.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 1: Do you agree there is a reliability need for the proposed training standard?**

Yes

No

**Comments**

All real-time market participants must have some level of training dependent upon the potential effects they may have on system reliability.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 2: Regarding the applicability of the SAR:**

Indicate which of the following you believe the proposed standard should apply:

- |  |   |
|--|---|
| <b>Reliability Authority/Coordinator</b> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Balancing Authority</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Interchange Authority</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Planning Authority</b>                | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Resource Planner</b>                  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Planner</b>              | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>Transmission Service Provider</b>     | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Owner</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Transmission Operator</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Distribution Provider</b>             | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Owner</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Generator Operator</b>                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Purchasing-Selling Entity</b>         | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Market Operator</b>                   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| <b>Load-Serving Entity</b>               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Comments**

It should apply to all entities that can affect real-time operations. However, the training requirements for each entity should be different dependent on the way they can affect the system.

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 3: Do you believe the content as outlined in the Standard Authorization Request is adequate?**

**Are additional elements that should be included in this proposed standard?**

Yes

No

**If yes, please explain.**

**Are there existing elements that should be excluded in this proposal?**

Yes

No

**If yes, please explain.**

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 4: Do you believe there are any regional differences that should exist in the proposed standard?**

Yes

No

**If yes, please list the region-specific differences.**

My perspective is one of a Generator Operator which operates in four different Reliability Councils (centralized dispatch generation control center with control of multiple generation assets in multiple regions). Each Council has unique differences that must be accommodated.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 5: Do you believe it is practical to implement the proposed standard with the existing staffing levels?**

Yes

No

**If no, please explain what staffing changes might be needed.**

I have no training staff so it would be impossible to design/implement formal training just for my group without additional staffing/expenditures. However, we do participate in all "pool wide" system operator training that is offered in MAAC and MAIN (via PJM) and applicable to Generation Operators. This is the type of training I would depend on to meet the requirements.

**Comments**

**Comment Form – Proposed System Personnel Training Standard**

---

**Question 6: How and how often should training programs be reviewed for compliance with the standard?**

Every five years.

**Comments**

## Comment Form – Proposed System Personnel Training Standard

---

**Question 7: Please enter any additional comments you have regarding the proposed SAR below.**

### Comments

Some random thoughts: Although we do operate in several Reliability Councils and I admit there are clearly regional differences, the minimum standard should be global so I don't have to meet different minimum standards. The training should be web/computer based so it is available during back shifts. The training needs to be geared towards the responsibilities. For example, the minimum level for Generator Operators need not be at the same level as that of Reliability Coordinators. The costs should be spread across all market participants because the entire market benefits from reliability..