## Dragon, Karen E. (CDC/NIOSH/EID)

From:

Radiography-Comments

Sent:

Thursday, June 01, 2006 2:48 PM

To: Cc: NIOSH Docket Office (CDC)

Doyle, Glenn (CDC/NIOSH/EID); Chen, Jihong (Jane) (CDC/NIOSH/EID) (CTR)

Subject:

085 - Radiography Comments

Name

Organization

**Email** 

Address

Comments

Re: http://www.cdc.gov/niosh/topics/chestradiography/default.html

The following paragraph seems to be missing something, perhaps the result of a word processing error (see yellow highlighting): "In the associated topic pages, information is provided in detail on ensuring reader competency (NIOSH B reader program) and on principles of radiographic classification methods. Attention is drawn to the information presented on issues in radiographic classification, which discusses accuracy, precision, and reader variability and page on ethics for B readers. "Use of upper case for "B reader" and "B Reader" should be consistent. It isn't. "B Reader" seems to be the forma most commonly used.

Use of upper case for "B Reader Program" should be consistent. Sometimes in these pages, it appears as "The B Reader program."

Re: http://www.cdc.gov/niosh/topics/chestradiography/breader-info.html

The form "B READER" shows up here. For consistency, it should be "B Reader."

It is stated that: "NIOSH B Reader approval is granted to physicians with a valid medical license who demonstrate proficiency..." Would it be better to revise this to: "NIOSH B Reader approval is granted to physicians with a valid U.S. state medical license who demonstrate proficiency..."

Use of "NIOSH-certified B Reader" can lead to an erroneous inference that there is a non-NIOSH approach for B Reader certification. It would be best to simply refer to "certified B Reader" in the context of this topic page.

It might be best to be less precise in the following statements:

"Since the examination was first administered in 1974, NIOSH has certified more than 1200 physicians. Currently, there are 531 certified B Readers."

Less likely to become outdated on this web page might be something like:

"Since the examination was first administered in 1974, NIOSH has certified more than 1000 physicians. Currently, there are about 500 certified B Readers."

"Nearly 56% of NIOSH-certified B Readers renew certification for an

additional term." Perhaps something like "Most NIOSH certified B Readers

renew certification for an additional term" would be less likely to become outdated, say, if 57% become recertified.

The formatting of the two listed references on this page is inconsistent.

In: "The revised edition (2000) of the Guidelines for the Use of the ILO International Classification of Radiographs of Pneumoconioses has been released," the title of the ILO publication is not italicized as it is elsewhere in these pages. A check for consistency of use of italics of publication titles on all these draft pages should be done.

CWHSP should be spelled out when it appears on this page in: "A revised Roentogenographic Interpretation Form, consistent with the ILO revision, is now available from NIOSH and is being used in all components of the CWHSP." Also, shouldn't this be the CWXSP? Note that there is apparent inconsistency in many of these draft pages in referring to the CWXSP or CWHSP. For consistency, whenever referring

to radiographs, CWXSP would be appropriate.

Suggest revising punctuation as follows: "The ILO now offers two distinct sets of the standard films,— the "Complete Set" consisting of 22 radiographs, and the "Quad Set" consisting of 14 radiographs."

The following is stated: "However, because the quality of the 2000 standard radiographs has been enhanced by the ILO, NIOSH recommends that readers consider using these current standard radiographs for classifying films for NIOSH programs and studies." Shouldn't NIOSH require that readers use the current standard radiographs? If not, shouldn't NIOSH at least ascertain and record which set the reader uses whenever a reader reads for NIOSH?

It is stated that "The examination is difficult and consistently demonstrates a 50/50 pass/fail rate." Wouldn't it be better to restate this in a less precise manner, perhaps as: "The examination is difficult and has consistently demonstrated a pass/fail rate of approximately 50/50."

It is stated that "The Syllabus can also be utilized at 9 other stationary locations across the country and 18 international sites." It might be best to delete "and 18 international sites," particularly if the intent is to do away with new certification and recertification of non-US physicians.

It is stated: "To request the syllabus, contact the CWHSP at (888) 480-4042." This "CWHSP" should be spelled out. Better yet, it should be replaced by "CWXSP", which has already been spelled out on this page.

Alternatively, "To request the syllabus, call (888) 480-4042."

It is stated that "The American College of Radiology (ACR) Symposium on Radiology of the Pneumoconioses is usually held every 2-3 years. The last Symposium was held during March 2004, in McLean, Virginia." It would be best to delete the second sentence, as this will soon be outdated (if it isn't already outdated).

It is stated that "Questions have focused on the use of either 'soft copy' images that can be read on a monitor or 'hard copy' digital images that can be printed on film like traditional film-screen radiography (FSR)."

"(FSR)" should be deleted, as this abbreviation is not used elsewhere on this page.

There is apparent inconsistency in use of "film-screen radiography" in the preceding sentence and "film screen radiographs" (unhyphenated) in the following paragraph. Whichever is correct (or chosen for consistency) should be used throughout all these draft pages.

Re: http://www.cdc.gov/niosh/topics/chestradiography/breader-ethics.html

There is additional inconsistency in "B-reader" and "B Reader" that should be corrected. The non-hyphenized "B Reader" seems to be the most commonly used form.

It is stated that: "This code, modeled after those of the American Medical Association and the American College of Radiology, is a framework to help B Readers achieve this goal." References to these codes of ethics should be listed at the bottom of the page, along with links. A suggested link to the AMA Code of Ethics is:

http://www.ama-assn.org/ama/pub/category/13337.html. A suggested link to the ACR Code of Ethics is: http://www.acr.org/s\_acr/doc.asp?CID=1539&DID=15502. Why not also cite and reference and link the ACOEM Code of Ethics in this context?

Re: http://www.cdc.gov/niosh/topics/chestradiography/breader-list.html

It is stated that: "This list will be updated automatically as Readers become certified and others drop off." This might be better stated as:

"This list will be updated automatically as new Readers become certified and as certifications for formerly certified Readers expire or are

otherwise lost." (Also, is "automatically entirely correct, given the

possibility that a B Reader may lose certification as a consequence of losing his/her license to practice medicine. Can an updating of that nature be done "automatically"?)

It is stated that "Please note that the B Reader certification issued by NIOSH is national/international." This statement is confusing. What does

this "national/international" mean in this context? If there is a

difference between "national certification" and "international certification," this needs to be explained. If there is no difference, then why is there a need to include this statement?

It is pointed out that concerns about individual B Readers should be addressed to the appropriate State licensing board. Given that, output tables produced by the online search function of the B Reader database should be modified to include the States in which the B Reader is licensed—or at least those in which he was licensed when s/he most recently (re)certified.

Re: http://www.cdc.gov/niosh/topics/chestradiography/breader.html

Is it necessary to spell out NIOSH when it is already spelled out in the header of each of these topic pages?

It is stated that: "By evaluating the ability of a reader to classify a test set of radiographs and certifying only those who achieve a certain level of proficiency, the B Reader Program is intended to ensure that physicians who read chest radiographs for evidence of pneumoconiosis using the International Labour Office (ILO) Classification system are as accurate and precise as possible." Is it the physicians or their classifications that are intended to be "as accurate and precise as possible"? If the latter, then the statement should be revised to make this clear.

"ILO" is used on this page for both "International Labour Office" and "International Labour Organization." Is this intentional?

Also, even though ILO is spelled out as "International Labour Office," at least one subsequent occurrence later on this page also spells it out with a parenthetical "ILO." It probably isn't necessary to spell it out more than once on a page.

It is stated that: "The Federal Coal Mine Health and Safety Act was passed in 1969 following escalat ing concerns about coal workers'

pneumoconiosis and the rising number of fatalities due to mining accidents. The Act was then updated in 1977 (Federal Mine Safety and Health Act of 1977, Public Health Law 91-173)." First, note the inadvertent space that should be removed from "escalating." More substantively, should it be "Public Law 91-173," rather than "Public Health Law 91-173."

There is a section on this page headed by "Example of B Reading at work:

the NIOSH Coal Workers' Health Surveillance Program (CWHSP)," which invokes the CWHSP multiple times. This is confusing, in that other pages in this draft set of related topic pages refer to the program as the Coal Workers' X-ray Surveillance Program (CWXSP). To avoid confusing readers, it would be best to consistently refer to this program involving B Readers and ILO classifications of chest radiographs as the CWXSP.

It is stated that "The test is scored out of 100 points with a passing score being a combined score of fifty or more points." This is a confusing statement for a number of reasons, not the least of which is that there is no antecedent information to inform the reader what is meant by "a combined score." A clearer statement might be: "The test is scored on the basis of a total possible score of 100 points, with a passing score being 50 or more points."

It is stated that "There are six sections to the examination: small opacities (3 parts), large opacities, pleural abnormalities, and other abnormalities with the scoring weighted towards parenchymal abnormalities (60%)." This would be better stated in two sentences, as: "There are six sections to the examination: small opacities (3 sections), large opacities, pleural abnormalities, and other abnormalities. Scoring is weighted towards parenchymal abnormalities (60%)." As currently stated, it seems that the scoring of "other abnormalities" is weighted towards parenchymal abnormalities.

It is stated that "To request the Syllabus, contact the CWHSP at (888) 480-4042 or email CWHSP@cdc.gov." It would be simple to delete "CWHSP" in this statement by revising it as follows: "To request the Syllabus, call (888) 480-4042 or email CWHSP@cdc.gov." Note also the inconsistency in use of "Sylabus" here and "syllabus" in the same context on http://www.cdc.gov/niosh/topics/chestradiography/breader-info.html .

It is stated that: "The American College of Radiology (ACR) Symposium on Radiology of the Pneumoconioses is usually held every 2-3 years. The last symposium was held March 2004, in McLean, Virginia." The second sentence

should be deleted, as this information will soon be outdated (if it isn't already outdated).

It is stated that: "If a reader fails the recertification exam, they must take the original certification examination before expiration of their current certification in order to remain certified." The "they" is inappropriate in this context, as its antecedent is "as reader." Also, it is not just taking the original exam but passing it that allows such a reader to remain certified. This warrants revision of the statement, perhaps as: "A reader who fails the recertification exam must take and pass the original certification examination before expiration of their current certification in order to remain certified."

It is stated that: "However, if they fail the certification exam, readers must wait six months before retaking it (Wagner 1993)." This might be better stated as: "However, a reader who fails the certification exam must wait six months before the certification exam must wait six months and the certification exam must wait six months are certification

better stated as: "However, a reader who fails the certification exam must wait six months before retaking it (Wagner 1993)."

It is stated that: "Finally, B Readers who fails to recertify before the expiration of their certification automatically become A Readers." Note the (plural-singular) disagreement of "Readers" and "fails" in this statement. This should perhaps be revised to: ""Finally, a B Reader who fails to recertify before the expiration of his or her certification automatically becomes an A Reader."

On multiple places on this page, "ILO Classification system" appears. One would think that "System" would have an upper case "S" when "Classification" has upper case "C" in this context. In fact, at the bottom of this page, it does appear as ""ILO Classification System." A systematic search and revision of all occurrences on all the draft pages should be done.

It is stated that "Currently, the Self-Study Syllabus and Film Set are available by mail in the United States from NIOSH on a first-come, first-served basis. Additionally, the Syllabus may be used on-site by anyone interested in coming to NIOSH, Morgantown or at nine other locations across the country and at 18 international sites. NIOSH is working to put the entire Self-Study Syllabus and Film Set on compact disc to increase availability of the Syllabus to each test taker." This paragraph is confusing. Is there one item (the syllabus with the film set) or two items (the syllabus and the film set)? If the later, why would only the syllabus be available on site? And is the availability by mail on a loan basis only? And should the mention of the 18 international sites be deleted, given the current intent to restrict B Reader certification to U.S. physicians.

An inappropriate link is provided for the "Contact information for each State's medical licensing board can be found on the Federation of State Medical Boards ...". The link should be http://www.fsmb.org/directory\_smb.html . This problem occurs in both the last paragraph of text and in the list of references.

It is stated that: "Classifying chest radiographs is practicing medicine." Surely this statement can (and should) be modified through specification to avoid potentially erroneous generalization. After all, NIOSH investigators themselves conducted a study involving classification of chest radiographs by lay (non-medical) readers, and it would seem ludicrous to assert that the lay readers in that study were "practicing medicine."

Formatting of listed references on this page is not entirely consistent.

For example not all of the journal titles are italicized, most but not all journal titles are abbreviated, paper titles are inconsistently formatted in terms of upper/lower case, the ordering of the year of publication, volume, and pages is inconsistent, the "Federal Mine Safety and Health Act of 1977, Public Health Law 91-173" lacks hypertext linkage to the law, etc.

Re: http://www.cdc.gov/niosh/topics/chestradiography/breader.html

In "...across the entire spectrum of work related issues," "work related" should be hyphenated as "work-related."

In: "The International Labour Office (ILO) is the Organization's research body and publishing house (ILO 2002)," the parenthesis and it's contents should be deleted, as this is not the place to reference the ILO Classification System guidelines. (They are appropriately referenced in the following paragraph on this page.)

It is stated: "A series of guidelines on how to classify chest radiographs for persons with pneumoconioses has been published by the ILO

since 1950." In fact, the classification system is used to classify

radiographic abnormalities (or lack thereof) consistent with pneumoconiosis, regardless of whether or not the person has pneumoconiosis. The statement should be revised accordingly.

Re: http://www.cdc.gov/niosh/topics/chestradiography/ilo.html

Consider the following revision: "Large opacities are classified as category A (for one or more large opacities not exceeding a combined diameter of 5 cm), category B (large opacities with combined diameter greater than 5 cm but does with a combined area not exceeding the equivalent of the right upper zone), or category C (bigger larger than B)."

Consider the following revision: "Pleural abnormalities are also assessed with respect to location, width, extent, and degree of calcification."

Including the "also" has the effect of implying that the parenchymal opacities were assessed in all these ways, which they aren't.

The title of the ILO publication "Guidelines for the Use of the ILO International Classification of Radiographs of Pneumoconioses" is inconsistently formatted on this page—italicized and non-italicized forms are used.

The example chest radiographs on this page are labeled with terms ("Simple Coal Workers' Pneumoconiosis" and "Progressive Massive Fibrosis") for which there is no antecedent information relating to content on this page (which relates to the ILO Classification System). Consider revising these labels to tie these radiographs back into the content of this page, perhaps as follows: "Small Parenchymal Opacities in Coal Workers Pneumoconiosis" and "Large Parenchymal Opacities (Progressive Massive Fibrosis) in Coal Workers' Pneumoconiosis"

Re: http://www.cdc.gov/niosh/topics/chestradiography/interpretation.html

No comments

Re

http://www.cdc.gov/niosh/topics/chestradiography/radiographic-classification.html

Note that the form "B reader" is used on this page. "B Reader" has been the norm up to this page within these draft pages. Again, a systematic search of all the draft pages should be done to assure consistency.

The following statement is made in item #3 under "Epidemiologic Research."

"Reader selection: To achieve scientifically-accepted standards of precision independent B-reader classifications are necessary." Here the hyphenated form "B-reader" is used. While the hyphenated form may be appropriate as a compound adjectival modifier of "classification" in this context, there is inconsistency in that a non-hyphenated "B reader" is used in an adjectival manner in the preceding section on Worker Monitoring and Surveillance, where the following statement appears: "A single B reader classification of each chest radiograph is generally sufficient...." Again, a systematic search of all the draft pages should be done to assure consistency.

The link for "Specifications for medical examinations of underground coal miners. 42CFR37" under the "References" on this page is incorrect. It should be: http://www.access.gpo.gov/nara/cfr/waisidx\_02/42cfr37\_02.html

Re:

http://www.cdc.gov/niosh/topics/chestradiography/medical-diagnosis.html#factors

It is stated that: "It should be stressed, however, that although formal classification of the chest radiograph using the ILO system can at times be useful in furthering accurate diagnosis of disease, in general it is not required." The "formal" in this context is potentially confusing.

What is a "formal classification" vs. an "informal classification" and are "informal classifications" never useful in diagnosis?

It is stated that: "Contacts for State Public Health Departments can be found on the Association for State and Territorial Health Officials

(ASTHO) Web site (external link)." A more specific ASTHO ljnk for health department contacts would be: http://www.astho.org/index.php?template=regional\_links.php Consider

likewise changing the ASTHO reference listed at the bottom of this page

to: "State and Territorial Health Departments (ASTHO)" and linking to this more specific page.

The ATS reference listed on this page could be hypertext-linked to the cited reference at: http://www.thoracic.org/sections/publications/statements/pages/eoh/asbestos.html

Re:

http://www.cdc.gov/niosh/topics/chestradiography/epidemiologic-research.html

It is stated that: "Reader should have demonstrated skills (e.g., B

Readers) and experience." Multiple independent readings are recommended, so shouldn't the plural form be used: "Readers should..."

Re:

http://www.cdc.gov/niosh/topics/chestradiography/worker-monitoring.html

It is stated that "Contacts for State Public Health Departments can be found on the Association for State and Territorial Health Officials

(ASTHO) Web site (external link)." A more specific ASTHO link for health department contacts would be:

http://www.astho.org/index.php?template=regional\_links.php Consider

likewise changing the ASTHO reference listed at the bottom of this page

to: "State and Territorial Health Departments (ASTHO)" and linking to this more specific page.

In the first mention of "OSHA" on this page, it is not spelled out (" OSHA (external link) also specifies B Readers and the International Labour Office (ILO) Classification in its asbestos safety and health standards for general industry, construction, and shippard employment." However, in a subsequent mention of OSHA on this same page, it is spelled out ("The Occupational Safety and Health Administration (OSHA) asbestos standard (external link) requires that chest radiographs obtained for surveillance of those exposed to asbestos be interpreted and classified by a B Reader, radiologist, or experienced physician with expertise in pneumoconioses.").

It should be spelled out the first time.

It is stated that: "The Mining Safety and Health Administration (MSHA) requires that any diagnosis of a dust disease or illness must be reported under MSHA 30 CFR 50." Note the spaces in "30 CFR 50," a different formatting than the lack of such spacing in "42CFR37" that appears elsewhere on this page and on other draft pages.

It isn't clear why the "Fay JWJ, Rae S. The Pneumoconiosis Field Research of the National Coal Board. Ann Occup Hyg 1959; 1:149-61." is listed as a reference at the bottom of this page. It doesn't seem to be cited on this page.

The MSHA Policy Manual is not included in the reference listing at the bottom of this page, even though it is cited on this page.

Re:

http://www.cdc.gov/niosh/topics/chestradiography/government-programs.html

There is no need to use upper case for "workers compensation" in the statement that: "State Workers' Compensation programs are completely separate from federal benefits programs."

Likewise, there is no need for upper case "governments" in the statement that: "State disability benefits and compensation differ by state, so contact the State Office of Worker's Compensation (external link) to learn about compensation from the State Governments." The word "appropriate" should be inserted between "the" and "State" in this statement. Finally, the position of the apostrophe should be corrected in this same statement.

Re

http://www.cdc.gov/niosh/topics/chestradiography/contested-proceedings.html

The hypertexted link given for: "The role of classification of chest radiographs in contested proceedings" is erroneous and should be corrected.

In the statement "Testimony must be scientifically valid and be able to withstand peer review (ACR 2002, AMA external links)," the link to the ACR takes one to the home page of the ACR. It would be more helpful to provide a more specific link to the ACR statement on expert witness testimony at:

http://www.acr.org/s\_acr/bin.asp?TrackID=&SID=1&DID=12217&CID=541&VID=2&DOC=File.PDF.

The same could be done with the ACR link in the listing of references at the bottom of the page—thus replacing "(This Web site is not a direct link.)" with a direct link.

In the statement "Testimony must be scientifically valid and be able to withstand peer review (ACR 2002, AMA external links)," the link to the AMA takes one to the home page of the AMA. It would be more helpful to provide a more specific link to the AMA expert witness testimony policy

http://www.ama-assn.org/apps/pf\_new/pf\_online?f\_n=browse&doc=policyfiles/HnE/E-

9.07.HTM&&s\_t=&st\_p=&nth=1&prev\_pol=policyfiles/HnE/E-8.21.HTM&nxt\_pol=policyfiles/HnE/E-9.01.HTM& Note that the same could be done for the AMA link in the listing of references at the bottom of the page—thus replacing "(This Web site is not a direct link.)" with a direct link.

Why not also cite and reference ACOEM's Ethical Guidelines for Occupational and Environmental Medicine Expert Witnesses (see:

http://www.acoem.org/position/statements.asp?CATA\_ID=31)?

With respect to the AMA reference at the bottom of this draft page, the cited reference is to: American Medical Association. H-265.994, Expert Witness Testimony. (Sub. Res. 223, A-92; Appended: Sub. Res. 211, I-97; Reaffirmation A-99) (Not a direct link.) The direct link to this is http://www.ama-

assn.org/apps/pf\_new/pf\_online?f\_n=browse&doc=policyfiles/HnE/H-265.992.HTM

and it would appear that this is not the appropriate AMA documentation to site in the context of this page. Rather, the link (to E-9.07 Medical Testimony at:

http://www.ama-assn.org/apps/pf\_new/pf\_online?f\_n=browse&doc=policyfiles/HnE/H-265.992.HTM ) suggested in the preceding comment would appear to be appropriate for this context.

In the listing of references on this page, it appears that more than one journal reference is missing the journal title.

The last reference listed (to the AMA Impairment Guides) could be hypertext-linked to https://catalog.ama-

assn.org/Catalog/product/categories.jsp?parentCategoryName=Guides+Impairment+Resources&parentCategory=categor

Re:

http://www.cdc.gov/niosh/topics/chestradiography/technical-practices.html

At the end of the first paragraph on this draft page, the following parenthetical content appears: (e.g., Attfield and Morring, 1992; Ruckley et al., 1984; Miller and Jacobsen, 1985, and Cotes and King, 1988). The comma between "1985" and "and" should be replaced by a semicolon.

It is stated that: "Additionally, before radiographs may be submitted to NIOSH under the program, sample images from each radiographic unit must be evaluated and approved by NIOSH ( 42CFR37 external link)" There is a comma missing at the end of this sentence. More substantively, the hyper-texted link is wrong. It should be: http://www.access.gpo.gov/nara/cfr/waisidx\_02/42cfr37\_02.html .

The same applies to the link in the following statement: "For example, in the NIOSH Coal Workers' X-ray Surveillance Program, physicians who classify radiographs for the program are required to be B Readers for the second and any later readings of each radiograph ( 42CFR37 external link)."

The same applies to the link to these regulations in the list of references at the bottom of this draft page.

Re: http://www.cdc.gov/niosh/topics/chestradiography/resources.html

The references to the journal articles are inconsistently formatted. Some use full journal titles, others use journal title abbreviations. Some use upper case letters for each word in the paper title, while most don't.

Some insert an "and" before the last author's name, while others don't.

Some cite issue number, while others don't. And they vary in placement of the year of publication.

When I checked, the link for "Black Lung Benefits Act (BLBA) External Link: http://www.dol.gov/dol/compliance/comp-biba.htm" was unavailable. This should be rechecked.

Likewise, when I checked, the link for "Black Lung Clinics Program. Bureau of Primary Health Care, Health Resources and Services Administration External Link: http://bphc.hrsa.gov/blacklung/default.htm" failed.

Likewise, when I checked, the link for "Federation of State Medical Boards External Link: http://www.fsmb.org/members.htm" failed.

Some of the links listed under "Web sites" (should this be "Web Sites"?) are links to federal laws, when there is a separate section of the resources that is labeled "Federal Laws and Regulations." Shouldn't these be placed under the latter section?

Why isn't the "Federal Mine Safety and Health Act of 1977, Public Health Law 91-173" hypertext-linked to the relevant web site?

It would be appropriate to assure that this listing of resources is complete and comprehensive once all revisions to the other draft pages are completed, and that it incorporates more specific web address linkages where these may replace more general links in the other draft web pages commented on above.