

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

IN RE: NATIONAL HOCKEY LEAGUE	)	
PLAYERS' CONCUSSION INJURY	)	MDL No. 14-2551 (SRN/JSM)
LITIGATION	)	
	)	Pretrial Order No. 7
This Document Relates to: ALL ACTIONS	)	Protocol for the Production of
	)	Hard Copy Documents and
_____	)	Electronically Stored Information

**I. DEFINITIONS**

A. **“Electronically stored information”** or **“ESI,”** as used herein, means and refers to computer generated information or data of any kind, stored in or on any storage media located on computers, file servers, disks, tape or other real or virtualized devices or media.

B. **“Metadata”** means and refers to information about information or data about data, and includes without limitation (i) information embedded in or associated with a native file that is not ordinarily viewable or printable from the application that generated, edited, or modified such native file which describes the characteristics, origins, usage and/or validity of the electronic file and/or (ii) information generated automatically by the operation of a computer or other information technology system when a native file is created, modified, transmitted, deleted or otherwise manipulated by a user of such system.

C. **“Media”** means an object or device, including but not limited to a disc, tape, computer or other device, whether or not in the producing party’s physical possession, on which data is or was stored.

D. **“Native File”** means and refers to the format of ESI in which it was generated and/or as used by the producing party in the usual course of its business and in its regularly conducted activities.

E. **“OCR”** means the optical character recognition file that is created by software used in conjunction with a scanner that is capable of reading text-based documents and making such documents searchable using applicable software.

F. **“Parties”** means or refers to the named plaintiffs and defendant in the above-captioned matter, as well as any later added plaintiffs and defendants.

G. **“Static Image”** means or refers to a representation of ESI produced by converting a native file into a standard image format capable of being viewed and printed on standard computer systems.

## **II. PRESERVATION AND DOCUMENT RETENTION**

The parties will meet and confer regarding the scope of preservation, custodians, data sources, date ranges, and categories of information that have been preserved in connection with this litigation. The parties agree to disclose information necessary to understand the current scope of preservation and whether any actions need to be taken to ensure appropriate preservation. The parties agree to produce or describe information governance and document retention policies or practices (*e.g.*, retention schedules or policies for electronic or hard copy documents, auto-delete functions, and mailbox size limits, advanced analytics) that may have an impact on the existence or accessibility of responsive documents or ESI. The parties will promptly disclose categories or sources of

responsive information that it has reason to believe have not been preserved or should not be preserved and will explain with specificity the reasons to support such a belief.

### **III. SEARCH PROTOCOL FOR ELECTRONIC DOCUMENTS**

The parties agree to meet and confer and use their reasonable best efforts to reach agreement regarding the methodology to be used, and which methodology shall, and shall not, be applied to each category of documents requested and/or category of potentially responsive documents. Documents or categories of documents that are easily identifiable and segregable may be collected without the use of search terms. The parties will indicate which categories of documents will be produced with and without the use of search terms. Where potentially responsive ESI shall be searched through the use of search terms, the parties agree to follow the process identified below and meet and confer regarding any proposed deviation. The fact that a document is captured by the application of the agreed upon search protocol does not mean that such document is responsive to any propounded discovery request or otherwise relevant to this litigation. The discovery requests shall govern the scope of documents to be produced, subject to any agreements reached during the parties' conferral.

The parties agree that they will cooperate in good faith regarding the identification, disclosure and formulation of appropriate search terms, Custodians, date ranges, custodial and noncustodial sources of relevant ESI, and categories of potentially responsive ESI in advance of any ESI search or production. With the objective of limiting the scope of review and production, and thereby reducing discovery burdens, the parties agree to the following schedule:

A. **Identification of Custodians and document collection.** The parties shall, on or before February 13, 2015, identify those key persons whose files are likely to contain documents relating to the subject matter of this litigation (each a “Custodian”), along with a description of the proposed Custodians’ job title and brief description of such person’s responsibilities (including dates of employment by the applicable producing party). The parties retain the right, upon reviewing the initial production of documents, and conducting other investigation and discovery, to request that files from additional Custodians be searched and meet and confer regarding such request. Following agreement on a list of Custodians, each party will begin collecting potentially responsive documents, ESI, and information in the possession, custody or control of each Custodian (the “Collected Documents”).

B. **ESI Sources.** The parties will identify and describe the ESI storage systems or devices that may house potentially relevant data, including both custodial and noncustodial sources of ESI. The parties also will meet and confer regarding sources of relevant ESI that may not be reasonably accessible.

C. **Discussion regarding search terms.** On February 27, 2015, the plaintiffs shall provide a list of proposed search terms, which shall contain all search terms that they believe would lead to the identification of relevant documents. On or before March 13, 2015, the defendant shall provide any additional search terms that it believes are necessary to identify responsive documents. To the extent reasonably possible, search terms will be crafted with input from the Custodians in order to identify appropriate nomenclature, code words, etc. The parties shall meet and confer regarding the proposed

search terms by March 20, 2015. The parties will use best efforts to agree to an initial, preliminary set of search terms (the “Preliminary Search Terms”) by March 27, 2015. If defendant objects to a search term based upon likely responsiveness rates or purported burden and, after good faith attempts, the parties cannot to come to an agreement, the disputed search term will be included in the Preliminary Search Terms and included in the process set forth in III. D.

D. **Application of Preliminary Search Terms.** Within two (2) weeks of finalizing the Preliminary Search Term list, defendant shall proceed with the application of the Preliminary Search Terms to all Collected Documents, including all related metadata. All queries will be run in a non-case sensitive manner, except as otherwise specifically provided in the Preliminary Search Term list. The population of documents returned from this process shall be removed from the total universe of Collected Documents and set-aside to be reviewed for production. The defendants shall provide plaintiffs with a search term hit list (including the number of documents that hit on each term, the number of unique documents that hit on each term (documents that hit on a particular term and no other term on the list), and the total number of documents that would be subject to collection by using the proposed search term list). The defendant reserves the right, upon application of the Preliminary Search Terms, to object to use of one or more of the Preliminary Search Terms based on, for example, responsiveness rates or an unduly burdensome volume of hits. Upon such objection, the parties shall meet and confer regarding modifications to the set of Preliminary Search Terms. Objections will be supported by information sufficient for plaintiffs to assess the claim

of burden. For any proposed search terms that are not agreed to (the “Disputed Terms”), the parties shall use best efforts to promptly meet and confer regarding any disputes. Techniques such as sampling may be utilized in order to resolve any disagreements on particular terms in an informed manner. If Disputed Terms still exist at the end of the meet and confer process, the parties will submit those terms to the Court in the form of a joint discovery letter with a discussion of the relevance and/or burden associated with those search terms. Such letter, if necessary, shall be timely submitted upon completion of the meet and confer process.

E. **Technologies.** Prior to use, the parties should meet and confer to disclose and discuss any proposed use of technologies to reduce the number of documents to be reviewed or produced (*i.e.*, file type culling, near de-duplication, e-mail thread suppression or technology assisted review). Use of these technologies to reduce the reviewable collection or production, other than as described within this document, requires the consent of the receiving party.

F. **Continuing obligations.** The parties will continue to meet and confer regarding any search process issues as necessary and appropriate, including agreeing to modify any of the dates and time frame set forth in this protocol. This protocol does not address or resolve any other objection to the scope of the parties’ respective discovery requests, and it does not prevent any party from undertaking searches of its own ESI for its own purposes at any time.

#### IV. **PRODUCTION OF HARD COPY DOCUMENTS**

A. Responsive documents that were either (i) originally generated as or

converted into ESI but now only exist in physical hard copy format, (ii) printed ESI that contains new alterations since printed (i.e., handwritten notes), or (iii) originally generated in hard-copy format shall be converted to single page, Group IV, 300 DPI TIFF format and produced following the same protocols set forth herein.

B. The parties will use best efforts to unitize documents (*i.e.*, distinct documents should not be merged into a single record, and a single document should not be split into multiple records), and should be produced in the order in which they are kept in the usual course of business.

C. If an original document contains color determined to be necessary to understand the meaning or content of the document, the document should be produced as single-page, 300 DPI JPG images with JPG compression and a high quality setting as to not degrade the original image.

D. Multi-page Optical Character Recognition (“OCR”) text for each document should also be provided and named with the Bates number of the first page of the document to which it corresponds. The OCR software should be set to the highest quality setting. Settings such as “auto-skewing” and “auto-rotation” should be turned on during the OCR process. Documents that are redacted will be re-scanned using OCR software following redaction and only OCR text of the redacted document will be produced.

E. A text cross reference load file should also be included with the production delivery that lists the beginning bates number of the document and the relative path to the text file for that document on the production media.

F. A delimited text file that contains available fielded data should also be

included and at a minimum include Beginning Bates Number, Ending Bates Number, Custodian, and Number of Pages. The delimiters for that file should be:

Field Separator, ASCII character 20: "¶"  
Quote Character, ASCII character 254 "þ"  
Multi-Entry Delimiter, ASCII character 174: "®"

G. A producing party who desires to produce hard copy documents by means of a keyword search shall disclose and discuss the production of hard copy documents by means of keyword search on or before March 27, 2015, as part of the conferral process outlined in Section II above. To the extent any party identifies any responsive hard copy documents not hit upon by keyword searches, any such non-privileged documents must be produced, subject to any agreements reached regarding the parties' objections to discovery requests.

## V. PRODUCTION OF ESI

A. **Document Image Format.** With the exception of databases discussed in Section V.K. and ESI discussed in Section V.C., or unless otherwise agreed to in writing by a requesting party, ESI shall be produced electronically as a single-page, Group IV, 300 DPI TIFF image.

B. **Text Files.** For each document produced in TIFF format, a single text file shall be provided along with the image files and the metadata discussed in Section IV.I. The text file name shall be the same as the Bates number of the first page of the document. Files names shall not have any special characters or embedded spaces. Electronic text must be extracted directly from the native electronic file unless the document requires redaction, is an image file, or is any other native electronic file that



does not contain text to extract (e.g., non-searchable PDFs). In these instances, a text file shall be created using OCR and shall be produced in lieu of extracted text. Extracted text shall be provided in UTF-8 format text format.

C. **Native Files.** The parties acknowledge that production in TIFF format may be inadequate for certain types of ESI (e.g., spreadsheets). The producing party will produce in native format all audio, video and spreadsheet-type files, including but not limited to Microsoft Excel and CSV. Any native files that are produced shall be produced with the source file path provided, as well as all extracted text and applicable metadata fields set forth in Section IV.I. To the extent native files are produced without an accompanying rendering of TIFF images as provided in Section IV.A., a slip sheet will be produced in TIFF format to facilitate Bates and confidentiality stamping. The parties shall meet and confer to agree upon a protocol for the use of native files. To the extent that either party believes that native files should be produced for a specific document or class of documents not required to be produced in native format pursuant to this paragraph, the parties should meet and confer in good faith. If documents requested in native format require redactions, the parties will produce TIFF images for those documents, except that for Excel and spreadsheet files, the parties will meet and confer regarding how to implement redactions while ensuring that proper formatting and usability are maintained.

D. **Document Unitization.** For files produced as TIFF images, each page of a document shall be electronically saved as an image file. If a document consists of more than one page, the unitization of the document and any attachments shall be maintained

as it existed in the original when creating the image files. The producing party shall produce a unitization file (“load file”) for all produced documents in accordance with the following formatting:

**OCR and Extracted Text Files (.TXT Files):**

- Single text file per document containing all of the document's pages
- Filenames should be of the form:

<Bates num>.txt

Where <Bates num> is the BATES number of the first page in the document.

- Text must be encoded in UTF-8.

**Image Files:**

- Single page per image
- TIFF is Group IV compression, 300 dpi unless color or grayscale image is necessary, then .JPG would be acceptable
- Filenames should be of the form:

“<Bates num>.<ext>,” where <Bates num> is the BATES number of the page, and <ext> is the appropriate extension for the image format (.jpg, .tif).

**Index Files:**

- “Concordance Default” delimited text file utilizing the following characters:
  - The “comma” delimiter is “¶” (020)

- The “quote” delimiter is “p” (254)
- The “new line” delimiter is “®” (174)
- First line must contain the column/field names (set forth in Paragraph 1(c) herein)
- Every row must have the same number of columns/fields (empty values are acceptable)
- Text must be encoded in UTF-8

The parties agree to meet and confer in advance of any production of documents, and in consultation with their respective vendors, to discuss all unitization file/load file specifications.

E. **Duplicates.** Removal of duplicate documents will only be done on exact duplicate documents (based on MD5 or SHA-1 hash values, at the family level). Exact duplicate shall mean bit-for-bit identity of the document content. For exact duplicate documents, the producing party will produce a single copy of the responsive document (“Single Production Copy”), as well as the metadata described in section III.I herein for the Single Production Copy. The producing party shall populate a field of data that identifies each Custodian who had a copy of the produced document in addition to a separate field of data identifying the Custodian whose document is produced. The parties agree to meet and confer over any disputes regarding deduplication protocols prior to seeking judicial intervention.

F. **Color.** For photo files and Microsoft Powerpoint files, if the original document contains color, the document should be produced as single-page, 300 DPI JPG

images with JPG compression and a high quality setting as to not degrade the original image. However, the parties are under no obligation to enhance an image beyond how it was kept in the usual course of business. PowerPoint documents will be processed with hidden slides and all speaker notes unhidden, and should be processed to show both the slide and the speaker's notes on the JPG image.

G. **Bates Numbering and Other Unique Identifiers.** For files produced as TIFF images, each page of a produced document shall have a legible, unique page identifier (“Bates Number”) electronically “burned” onto the TIFF image in such a manner that information from the source document is not obliterated, concealed, or interfered with. There shall be no other legend or stamp placed on the document image unless a document qualifies for confidential treatment pursuant to the terms of a Protective Order entered by this Court in this litigation, or has been redacted in accordance with applicable law or Court order (including any Protective Order). In the case of Confidential Information, as defined in a Protective Order, or materials redacted in accordance with applicable law or Court order (including any Protective Order), a designation may be “burned” onto the document’s image at a location that does not obliterate or obscure any non-redacted information from the source document. Any party producing ESI in a native data format only shall employ the following method for purposes of identification: a slip sheet may be produced in TIFF format, as described in section III.C herein. However, if employing the above method for production of ESI in a native data format only is unduly burdensome or costly to the producing party, the parties shall meet and confer over whether the producing party may employ a different method for purposes of identification, such as a storage device (i.e., CD, USB, hard drive) containing such files which shall be Bates numbered.

H. **Production Media.** Documents shall be produced on CD-ROM, DVD, external hard drive (with standard PC compatible interface), file transfer site or FTP, or such other readily accessible computer or electronic media as the parties may hereafter

agree upon (the “Production Media”). The producing party shall accompany all document productions with a letter identifying the production date and the Bates number range of the materials contained on such Production Media item.

I. **Metadata.** The parties agree to produce the following list of metadata fields (to the extent available) to accompany each produced ESI file. Unless otherwise specified, by producing metadata, the producing party affirms that such metadata came from its records, with the exception of vendor-entered source/Custodian and document/production number fields. The following list identifies the metadata fields that will be produced (to the extent available):

- ProdBegin (beginning bates number of the first page of a document)
- ProdEnd (ending bates number of the last page of the document)
- AttachBegin (bates number associated with the first page of a parent document)
- AttachEnd (bates number associated with the last page of the last attachment to a parent document)
- Page Count (number of pages in a document)
- File Title (title data for E-docs)
- Email Subject (subject line for emails)
- Sent Date & Time (for emails only)
- Received Date & Time (for emails only)
- Created Date (for E-docs only)
- Last Modified Date (for E-docs only)

- File Author (author data for E-docs)
- File Last Edited By (author of last edit for E-docs)
- File Path (The file path from the location from which the item was stored in the usual course of business. This field should be populated for both e-mail and e-files.)
- Email From (FROM field in emails)
- Email To (TO field in emails)
- cc: (for emails only)
- bcc: (for emails only)
- Custodian
- Duplicate Custodians (the name(s) of any Custodian(s) whose duplicate file was removed during production)
- Confidentiality
- MD5 Hash Value
- Conversation ID (extracted ID used to tie together e-mail threads)
- File Name (the original file name of an E-doc or attachment to an email)
- File extension (the file extension of a document)
- Full Text (the full path to the OCR/extracted text file on producing media)
- Native Link (the full path to any natives on producing media)

When a metadata field includes a date, the date shall be provided in the following format: mm/dd/yyyy. When a metadata field includes a time, the time shall be provided in the following format: hh:mm:ss AM. This provision, however, does not act as a waiver of

any objections that may exist to the production of such file path data.

Notwithstanding the foregoing, the parties will meet and confer in good faith prior to the production of documents, with technical experts as needed, to clarify or resolve any issues (e.g., definitions of metadata fields, inconsistencies, burden) concerning the production of metadata and will modify this order to reflect any changes hereto.

J. **Attachments.** Email attachments must be mapped to their parent by the Document or Production number. If attachments are combined with their parent documents, then “BeginAttach” and “EndAttach” fields listing the unique beginning and end number for each attachment must be included. The parties shall meet and confer at a later date over the inclusion of embedded files from the production.

K. **Structured data.** To the extent a response to discovery requires production of discoverable electronic information contained in a database, disclosure of information such as the database name, business purpose, database owner, and field list may be necessary to inform the parties as to how to best produce relevant data. The parties agree to meet and confer to, with an understanding of which fields are relevant, to consider whether, in lieu of producing the database, the parties can agree upon a set of queries to be made for discoverable information or upon the sets of data or fields to be included and generate a report in a reasonably usable and exportable electronic file (e.g., Excel or CSV format) for review by the requesting party or counsel. Upon review of the report(s), the requesting party may make reasonable requests for additional information to explain the database schema, codes, abbreviations, and different report formats or to request specific data from identified fields.



**IT IS SO ORDERED.**

ST. PAUL, MINNESOTA, this 19th day of December, 2014.

s/Susan Richard Nelson  
SUSAN RICHARD NELSON  
UNITED STATES DISTRICT JUDGE