2.3 These guidelines treat the assignment of central office codes (NNX/NXX), including submission of new assignments for inclusion in the Routing Data Base System (RDBS)[4], Bellcore Rating Administrative Database System (BRADS) and LIDB Access Support System (LASS) so that notification to the industry can take place through RDBS outputs. Examples of these outputs are the Local Exchange Routing Guide (LERG) and the NPA/NXX Activity Guide (NNAG), BRADS outputs such as the Terminating Point Master (TPM) and the NPA/NXX Vertical and Horizontal Coordinates Data (VHCD), and LASS outputs such as the LIDB Access Routing Guide (LARG). Implementation of these assignments is beyond the scope of these guidelines.

2.4 The applicant must be licensed or certified to operate in the area, if required, and must demonstrate that all applicable regulatory authority required to provide the service for which the central office code is required has been obtained.

2.5 The guidelines should provide the greatest latitude in the provision of telecommunications services while effectively managing a finite resource.

2.6 These assignment guidelines may not apply to an environment where number portability exists. If and when number portability within an NPA becomes an issue, a set of guidelines may be required.

2.7 These guidelines do not address the issue of who will fulfill the role of Code Administrator(s). The guidelines described herein were developed by the industry without any assumption on who should be the Code Administrator(s).[5]

2.8 Administrative assignment of the CO code (NNX/NXX) public resource by an entity does not imply ownership of the resource by the entity performing the administrative function, nor does it imply ownership by the entity to which it is assigned.

2.9 Audits of both Code Administrator(s) and code applicants/holders may be performed to: 1) ensure uniformity in application of these guidelines by a Code Administrator to all code requests received by that Code Administrator, 2) ensure consistent application of these guidelines among all Code Administrators in the event there is more than one Code Administrator, 3) ensure compliance with these guidelines by code applicants and Code Administrator(s), and 4) ensure the efficient and effective use of numbering resources by code applicants/holders and management of numbering resources by Code Administrator(s).

2.10 An applicant is not required to provide any additional explanation or justification of items that he/she has certified. However, certification alone may not provide the Code Administrator(s) with sufficient information upon which to make a decision regarding code assignment, and additional dialog may follow. The Code Administrator(s) is still obliged to reply within 10 business days.

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4 Canadian NNX/NXX codes are not currently included in RDBS and hence not shown in the LERG. They are included in BRADS and shown in the TPM, NPA/NXX VHCD and other BRADS outputs.

5 A list of the current Code Administrator(s) is available upon request from NANPA (See Section 8).

3.0 Assignment Principles

The following assignment principles apply to all aspects of the CO code (NNX/NXX) Guidelines:

3.1 Central office codes (NNX/NXX), as part of NANP telephone numbers, are to be assigned only to identify initial destination addresses in the public switched telephone network (PSTN), not addresses within private networks.

3.2 Central office codes (NNX/NXX) are a finite resource that should be used in the most effective and efficient manner possible. All applicants for central office codes (NNX/NXX) will be required to provide technical and, for an additional code request, quantitative support for their code requests, to demonstrate that these guidelines are satisfied.

3.3 Information that is submitted by applicants in support of code assignment shall be kept to a minimum, shall be uniform for all applicants, and on request shall be treated as proprietary and adequately safeguarded. Information requested for RDBS and BRADS will become available to the public upon input into those systems.

3.4 Central office codes shall be assigned in a fair and impartial manner to any applicant that meets the criteria for assignment as detailed in Section 4.0.

3.5 Applicants for central office codes must comply with all applicable local governmental, state, federal and World Zone 1 governmental regulations relative to the services they wish to provide.

3.6 Any entity that is denied the assignment of one or more central office codes under these guidelines has the right to appeal that decision per Section 10.

3.7 Affected parties[6] in a given geographic area have the right and will be given the opportunity to participate as early as possible in the process of determining the alternatives for addressing CO code (NNX/NXX) exhaust and relief in that area before the Code Administrator(s) submits a final recommendation to the relevant regulatory body.

4.0 Criteria for the Assignment of Central Office Codes

The assignment criteria in the following sections shall be used by Code Administrator(s) in reviewing a central office code assignment request from a service provider for an initial and/or an additional code:

4.1 Assignment of the initial code(s) will be to the extent required to terminate PSTN traffic as authorized or permitted by the appropriate regulatory or governmental authorities, and provided all the criteria in Sections 4.1.1 through 4.1.3 are met. An initial code assignment will be based on identification of a new switching entity, physical point of interconnection (POI), or virtual POI consistent with regulatory restriction. Utilization criteria or projection will not be used to justify an initial NXX assignment.

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6 Affected parties are those entities that have applied for and/or received central office code (NNX/NXX) assignments or reservations within the NPA per Section 4.0 of these Guidelines.

4.1.1 The applicant must certify a need for NANP numbers, e.g., provision of local or cellular service in the Public Switched Telephone Network.

4.1.2 The applicant must submit an NXX request form certifying that a need exists for an NXX assignment to a point of interconnection or a switching entity due to routing, billing or tariff requirements.

4.1.3 The applicant must be licensed or certified to operate in the area, if required, and must demonstrate that all applicable regulatory authority required to provide the service for which the central office code is required has been obtained.

4.1.4 All information provided on the NXX request form will be considered confidential, with selected information made available publicly only for those fields that must be input to the RDBS and BRADS. The information placed in the RDBS or BRADS becomes public upon assignment of the new code in the appropriate routing data base product.

4.2 Assignment of additional code(s) will be made for an established point of interconnection or switching entity by satisfying one of the criteria in Sections 4.2.1 to 4.2.3. By completing the request form, the applicant certifies that their existing resources cannot reasonably meet this requirement.

4.2.1 For additional codes for growth, each code holder will certify that existing codes for the switching entity/POI, per service provided by that switching entity or POI, will exhaust within 12 months and will have documented and be prepared to supply as described in this Section, Section 2, and Appendix A (Audits) supporting data in the form of:

1) Telephone Numbers (TNs) Available for Assignment
2) Growth history for 6 months
3) Projected demand for the coming 12 months (See Appendix B).

4.2.2 An additional code(s) is necessary for distinct routing, rating, or billing purposes (e.g., Calling Party Pays).[7]

4.2.3 An additional code(s) is necessary for other reasons. The applicant must provide an explanation of why existing resources assigned to that entity cannot satisfy this requirement.

4.3 NNX/NXX code sharing between carriers, in which portions of the NNX/NXX codes are assigned to multiple switching entities/POI's, should be avoided unless mutually agreed to by affected parties.

When a single switching entity/POI provides access for multiple carriers (i.e., wireless and wireline carriers), and the need for numbers for either carrier is less than a full code (10,000 numbers), the unused numbers from an NNX/NXX code serving one of these carriers can be made available for any carrier served by the switching entity/POI, with the

[7] Any additional information that can be provided by the code applicant may facilitate the processing of that application.

following exception: not more than one cellular carrier should utilize numbers from a single NXX.[8]

4.4 Codes shall be assigned on a first-come, first-served basis. Good faith efforts shall be made to eliminate or to minimize the number of reserved codes. Special requirements exist in a jeopardy NPA situation. See Section 7.4 (d). Consideration shall be given by the Code Administrator(s) to code reservation if the applicant can demonstrate the reservation of a code is essential to accommodate technical or planning constraints or pending regulatory approval of a tariff to provide service when the applicant has provided a proposed code use date within twelve months.

Upon written request to the Code Administrator(s), one reservation extension of six months will be granted when the proposed code use date will be missed due to circumstances beyond the control of the applicant (e.g., hardware, software provision delays, regulatory delays, etc.).

No reservation will be made unless the applicant will meet the requirements of code assignment as outlined in Section 4 for initial codes or for additional codes, dependent upon whether the reserved code is to be an initial or additional code.

If a reserved code is not activated within eighteen months, the code will be released from reservation.

When the reservation was due to technical constraints (e.g., Step-by-Step switches) solely, the reservation will be extended until the constraint is no longer present.

4.5 A code assignment should not be delayed to an applicant who meets all certification and licensing requirements, if any, when all required tariff filings have been made to provide the service, when approval can be reasonably expected within the established tariff approval timeframe, and when the expected tariff approval date will fall on or before the requested effective date.

5.0 CO Code (NNX/NXX) Assignment Functions

The Code Administrator(s) shall:

5.1 Provide copies of the central office code assignment guidelines when requested by applicants, including timely notification of changes.

5.2 Receive and process applications for CO codes (NNX/NXX) from within the geographic NPA for which the CO Code Administrator(s) is responsible.

5.2.1 Receive NXX Code request and determine if the request is in compliance with code assignment policies and guidelines.

5.2.2 Respond within 10 working days from the date of receipt of an application form by completing the response portion that is part of these guidelines.

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[8] In certain situations there are technical, billing, service delivery, roaming, and/or tariff reasons that require partial and/or different NXX assignments.

5.2.3 Review the documentation and determine if the code request is in compliance with these code assignment policies and guidelines. In cases where a code application is denied, provide specific reasons for the denial to the applicant in writing and where to make an appeal.

5.2.4 Select an unassigned code for assignment.

5.2.5 For electro-mechanical switches, perform technical analysis as necessary to determine the appropriate CO code (NNX/NXX) to assign.

5.2.6 Perform the notification functions in jeopardy NPA situations. See Section 7.3(a).

5.2.7 Maintain records on codes assigned plus those available.

5.2.8 Collect and forward to NANPA records of codes assigned for use in the Central Office Code Utilization Survey (COCUS).

5.3 At the request of the code applicant and if the Code Administrator is the authorized party to input the data, the Code Administrator will input/revise the RDBS and/or BRADS assignment information provided by the applicant on the Central Office Code (NNX/NXX) Assignment Request and Confirmation Forms. Authorization and/or data input responsibilities are determined on an Operating Company Number level. If the Code Administrator does not have the Administrative Operating Company Number (AOCN) responsibility for the data inputs, the code applicant will contact Bellcore-TRA to determine the correct AOCN company and make other arrangements for entering the data into RDBS and BRADS. See Section 1.8 of Part 1 of the request form.

5.4 The following functions have an impact on the accurate routing of calls and are especially applicable to both newly assigned numbers and to the reassignment of existing CO codes.

5.4.1 Analyze and help resolve problems related to misrouted calls and calls that cannot be completed. Such trouble investigations should be initiated in the NPA in which the incomplete call originated.

5.4.2 Track switch cutovers and code reassignments, and perform other operational functions; e.g., code reclamation.

5.4.3 Ensure that the code applicant places the code in service within the time frame specified in Sections 6.3.3 and 4.4 of these guidelines. If the assigned code is not used within this time frame, the Code Administrator(s) shall request the return of the code for reassignment.

5.5 It is recognized that the overall code administration process, e.g., planning for number relief, is related to and will require exchange of information with the CO code (NNX/NXX) assignment process. The additional functions associated with code administration, related to CO codes (NNX/NXX) are described in Section 9.

5.6 The Code Administrator may, on occasion, be requested to set aside specific CO codes by regulators or through INC recommendations or guidelines. If an applicant requests one of the set-aside codes, the Code Administrator will advise the applicant of the reasons the code has been set aside. Should the applicant be unwilling to accept any other available CO

code, the Code Administrator shall respond with a Code Administrator's Response/Confirmation marked "Assignment activity suspended by the administrator." The "Explanation" section will state that the code has been set aside and will identify the body that directed the Code Administrator to do so. The applicant may then ask that body to advise the Code Administrator on whether or not to assign the requested set-aside code.

6.0 Responsibilities of Code Applicants and Holders

Entities requesting new CO code (NNX/NXX) assignments as well as entities already assigned CO codes shall comply with the following:

6.1 The Application Process

6.1.1 Code applicants for initial and/or additional CO code (NNX/NXX) assignments shall submit their requests to the appropriate Code Administrator(s) using the Central Office Code (NNX/NXX) Assignment Request and Confirmation Form (Code Request Form). One application form is required per NNX/NXX code requested. The code applicant will complete all required entries on the Code Request Form to the best of his/her knowledge as well as sign the Form.

6.1.2 Requests for code assignments should not be made more than 6 months prior to the requested effective date.

6.1.3 When requesting "additional" or subsequent code assignments, applicants shall meet the requirements as described in Section 4.2 and conform to the conditions contained therein.

6.1.4 The code applicant shall certify on the Code Request Form that to the best of his/her knowledge necessary governmental/regulatory authorization has been obtained to provide the service(s) for which the code is being requested.

6.2 Information Required for Code Activation

6.2.1 Before a CO code (NNX/NXX) can become active, all code holders are responsible for providing the information shown in Part 2 of the Code Request Form that includes routing information for entry into the RDBS and rating information for entry into BRADS. (Note: The LERG contains local routing information obtained from RDBS and reflects the current network configuration and scheduled changes within the PSTN.)

6.2.2 Because of the current standard 90-day industry interval for NNX/NXX code activation,[9] plus additional time required for code request processing, applicants should request "effective dates" at least 15 weeks (111 calendar days) after the date of receipt of the code request. Expedited requests (activation in less than 15 weeks) may increase the potential for call blocking and/or billing errors.

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9 For more information, refer to ICCF document 92-0726-004, "Recommended Notification Procedures to Industry for Changes in Access Network Architecture."

6.2.3 The RDBS and BRADS information will be entered one of two ways:

(a) Applicants for CO codes (NNX/NXX) may provide routing and rating information to the Code Administrator(s) by completing Part 2 of the Code Request Form. The Code Administrator(s) will then be responsible to ensure that the CO code (NNX/NXX) information is entered via on-line data entry access to RDBS and by submission of Change Notification Form (CNF) TF-061 (see Appendix C) to TRA for BRADS.

or,

(b) Code holders choosing not to complete Part 2 of the Code Request Form may arrange for the entry of appropriate routing and rating information through an entity with on-line data entry access to RDBS and by submission of Change Notification Form (CNF) TF-061 for BRADS.

6.2.4 A code applicant or holder who has issued or is planning to issue credit or calling cards will be responsible for entering CO code (NNX/NXX) information into the appropriate LIDB Access Support System (LASS).

6.3 Ongoing Administration

6.3.1 Information Changes

The information associated with a code assignment may change over time. Such changes may occur, for example, because of the transfer of a code -- through merger or acquisition -- to a different company. These changes may include not only a change in company name, but also a change in the location to which calls made with a given NXX are to be routed. Accordingly, the Code Administrator(s) must be informed of these changes to ensure that an accurate record of the entity responsible for the code and the data associated with the code is maintained.

It is the responsibility of the code holder to arrange for the entry of any changes to RDBS and BRADS data associated with a switching entity/POI including, but not limited to, Office Functionality and Switching Entity-Network Services through the Code Administrator, or the company with (AOCN) authorization.

6.3.2 Responsibilities of the Code Holder

The holder of a CO code (NNX/NXX) assigned by the Code Administrator(s) or acquired by other means such as transfer (i.e., by merger or acquisition) must use the code consistent with these guidelines. Most importantly, the new code holder must participate in the audit process (See Appendix A) necessary to effectively assess code utilization.

6.3.3 Code Use

Code assignments are made subject to the conditions listed in Section 4. A code assigned to an entity, either directly by the Code Administrator(s) or through transfer from another entity, should be placed in service within 6 months after the initially published effective date. Certification of in service will be required (see

Central Office Code (NNX/NXX) Assignment Request and Confirmation Form - Part 4). If the assignee no longer has need for the code, the code should be returned to the Code Administrator(s) for reassignment. If it is determined through the audit process or other means that a code is not in use after 6 months as noted above, the Code Administrator(s) will request the return of the code.

6.4 NPA Planning Information

6.4.1 All code holders shall provide forecasted code requirements to the Code Administrator(s) to be used solely for projecting NPA exhaust and for planning NPA code relief. All such forecasts shall be treated on a proprietary basis.

6.4.2 Information furnished by code holders shall be submitted on the form provided in Appendix D. This data will be aggregated and submitted by the Code Administrator(s) to NANPA for use in the annual COCUS studies.

7.0 Central Office Code Conservation

Assignment of World Zone 1 numbering resources is undertaken with the following objectives: to efficiently and effectively administer/manage a limited NANP resource through code conservation, to delay NPA exhaust and the need for NPA relief (e.g., splits/overlays) for as long as possible and to delay the eventual exhaust of the NANP (see Section 3.2). The timelines included in Appendix E are provided for illustrative purposes only. However, the "NPA Relief" and the "RDBS Update" dates are the only dates currently recognized as industry standards. In meeting these objectives the following are conservation measures to be taken by Code Administrator(s).

7.1 Annual COCUS studies will be conducted utilizing projected demand forecasts, provided by code holders (see Section 6.4), to identify NPAs nearing exhaust. The schedule for projected exhaust will be forwarded by NANPA to the appropriate Code Administrator(s) and published in summary format for industry use.[10]

7.2 Ongoing code administration practices which foster conservation shall include the following: (See Section 7.3 for jeopardy NPA situations.)

(a) Make code applicants aware of the options and potential benefits of sharing NNX/NXX codes, consistent with Section 4.3 above.

(b) Use of CO codes (NNX/NXX) for purposes other than assignment (e.g., test codes) should be minimized.

(c) Codes that may result in dialing confusion (e.g., HNPAs, adjacent NPAs used as CO codes) may be preferable for assignments other than to end users (i.e., test codes). Nonetheless, applicants requesting one of these codes are not precluded from receiving it, if unassigned and technically feasible.

(d) Implementation of code protection arrangements should be avoided where practical. When approaching the exhaust of an NPA, retention of protected codes should be re-examined. Code protection is an arrangement where a central office code

[10] NANPA will be responsible for disseminating COCUS results to the affected parties.

assigned in one NPA is not assigned in an adjacent NPA, thereby becoming protected to allow 7-digit dialing across the common boundary.

(e) Examination of the continued use of codes from the HNPA to serve customers in an adjacent NPA should be undertaken when the HNPA is nearing exhaust. Continued use should be eliminated where practical.

7.3 When it is determined by the Code Administrator(s) that an NPA is in jeopardy,[11] based on COCUS results and projected demand forecasts, the following actions will be taken to provide relief in the jeopardy NPA.

(a) The Code Administrator(s) will notify the appropriate regulatory authority(ies) that the NPA is in jeopardy and that special conservation procedures will be invoked. If appropriate, the Code Administrator(s) will obtain the approval of the regulatory authority(ies) for the implementation of the special conservation provisions.

(b) The Code Administrator(s) will notify the NANPA and affected parties of the established code relief date and the special conservation procedures documented in Section 7.4 will be invoked immediately. Affected parties including the local regulators within the jeopardy NPA will be invited to attend a meeting convened by the Code Administrator for an explanation of the special conservation procedures that will be in effect until code relief is implemented and initiate discussion of extraordinary NPA-specific conservation procedures. If and when extraordinary procedures are required in addition to 7.4, the Code Administrator(s) will notify affected parties (See Section 7.5). (Note: Affected parties are those entities that have applied for and/or received central office code (NNX/NXX) assignments or reservations within the jeopardy NPA per Section 4.0 of these guidelines.)

(c) NANPA will notify the industry of the NPA in jeopardy via an Information Letter (IL) which will include the code relief date.

7.4 The following are special conservation procedures that will be invoked in the situation of a jeopardy NPA.

(a) During the special conservation period, the Code Administrator will treat all code requests in a fair and impartial manner, consistent with the special conservation provisions.

(b) Upon receipt of the notice of the jeopardy situation from the Code Administrator, each code holder will review their forecast and demand data and provide the information to the Code Administrator within 30 days using the 'Jeopardy COCUS' form (Appendix F).

Any changes to information re: projected code use requirements during the special conservation period will be submitted to the Code Administrator as they occur

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11 A jeopardy NPA condition exists when the forecasted and/or actual demand for NXX resources will exceed the known supply during the planning/implementation interval for relief. Accordingly, pending exhaust of NXX resources within an NPA does not represent a jeopardy condition if NPA relief has been or can be planned and the additional NXXs associated with the new NPA will satisfy the need for new NXX(s) codes.

(c) For additional codes for growth, each code holder will certify that existing codes for the switching entity/POI, per service provided by that switching entity or POI, will exhaust within 6 months and will have documented and be prepared to supply as described in Section 4.2, Section 2, and Appendix A (Audits) supporting data in the form of:

1) TNs Available for Assignment
2) Growth history for 6 months
3) Projected demand for the coming 6 months (See Appendix B).

(d) For codes reserved per Section 4.4:

1) Holders of reserved codes will be asked to voluntarily return their codes or confirm their planned reservation dates.
2) Reservations with planned activation dates beyond the "NPA relief date" will be reviewed, with resources made available as a result of NPA relief.
3) Reservations with planned activation dates prior to the "NPA relief date" will not be honored if doing so would preclude the assignment of a code resource for which a certified request has been processed.
4) In this situation, reservations with the latest planned activation date will be the first codes to be released for assignment, and the reservation will be canceled.

(e) Requests for assignment of new codes for other than growth or to serve a new switching entity/POI should be minimized. However, after joint discussion between the Code Administrator and the code applicant, a special purpose code assignment may be appropriate. The decision to postpone or withdraw a code request is the code applicant's and must be confirmed in writing to the Code Administrator.

(f) In a jeopardy NPA situation, increased code sharing should be considered, subject to Section 4.3.

(g) During the jeopardy period, planning for extraordinary NPA-specific conservation procedures shall commence (Reference Section 7.5).

7.5 Unique circumstances within a given jeopardy NPA may require extraordinary NPA-specific conservation procedures. In this event, the following activities shall apply.

(a) The Code Administrator shall develop NPA-specific conservation procedures in conjunction with the affected parties in the jeopardy NPA (See Appendix G). The Code Administrator will work with the affected parties to continually refine the NPA-specific conservation procedures, as necessary, until NPA relief. The Code Administrator will notify the applicable regulatory authority(ies) of the NPA-specific procedures and, if appropriate, obtain approval for the procedures.

(b) If good faith efforts to reach agreements have failed, the Code Administrator shall draft and submit a proposed recommendation to the regulatory authority(ies) for approval. This does not preclude any other interested party from submitting an alternate recommendation.

(c) The Code Administrator will monitor changes in the jeopardy situation using the jeopardy COCUS form (J-COCUS, Appendix F). Based upon the results of (a) and using the J-COCUS information, the Code Administrator will implement each NPA-specific conservation procedure as required.

(d) The Code Administrator will notify the affected parties and applicable regulatory authorities of the implementation of the NPA-specific conservation procedure(s) as they occur.

(e) The Code Administrator will notify NANPA of the NPA-specific conservation procedures to be implemented. The NANPA will document any new conservation procedures developed along with their results in an Information Letter (IL) for future reference.

7.6 The special and/or extraordinary NPA-specific conservation procedures shall remain in effect, if required, until NPA relief has been implemented.

8.0 Maintenance of These Guidelines

It may be necessary to modify the guidelines periodically to meet changing and unforeseen circumstances. Questions regarding the maintenance of the guidelines may be directed to:

Director - NANP Administration
290 W. Mt. Pleasant Avenue
Room 1B-233
Livingston, NJ 07039
201-740-4645
201-740-6860 FAX

Requests for changes to these guidelines should be directed to the appropriate industry forum, currently the INC.

9.0 Responsibilities for Code Relief Planning

This section identifies required code relief planning functions that are related to the CO code (NNX/NXX) assignment functions as specified in these guidelines. These functions are identified because they are currently performed in conjunction with code assignment. An objective of this function is to promote effective and efficient code utilization and thereby help ensure the adequate supply of CO codes (NNX/NXX).

The Code Administrator(s) shall be required to provide assistance in the code relief planning process when and if necessary. The output of the planning process shall be made available to code holders, applicants and the industry by whatever means is appropriate.

Relief planning functions included in this section are as follows:

9.1 Tracks CO code (NNX/NXX) assignments within NPAs to ensure effective and efficient utilization of numbering resources.

9.2 Works with the Code Administrator(s) to prepare the annual CO Code Utilization Survey (COCUS) input as described in these guidelines and forwards the information to NANPA. (See Sections 5.2.8 and 7.1) This function includes the following activities:

9.2.1 Issues requests for, collects and compiles available information related to CO code (NNX/NXX) utilization and relief planning forecasts.

9.2.2 Investigates and resolves, wherever possible, any discrepancies in the information provided.

9.2.3 Any information released to NANPA or to the industry would be released only on an aggregated or summary basis. (See Section 7.1)

9.3 Projects CO code (NNX/NXX) exhaust within NPAs in order to prepare for NPA relief activity.

9.4 Develops plans for NPA relief and initiates implementation efforts, in both normal and jeopardy situations (Refer to Section 7.3). When the need for code relief is identified and relief activity is initiated, advises all parties affected by NPA relief activities and includes them in the planning effort.[12]

9.5 Collects, compiles and forwards the necessary information to NANPA for the purpose of obtaining an NPA assignment when it is determined that a new NPA code is required to accommodate relief.

9.6 Obtains endorsement of NPA relief plan from appropriate regulatory authority(ies), where necessary.

9.7 Develops dialing plan alternatives within local jurisdictions.

9.8 Provides assistance to users of numbering resources and suggests alternatives, when possible, that will optimize numbering resource utilization.

9.9 Prepares and issues information related to reports for special information requests and scheduled periodic reports that relate to utilization of numbering resources.

10.0 Appeals Process

Disagreements may arise between the Code Administrator(s) and code holders/applicants in the context of the administration of these guidelines. In all cases, the Code Administrator(s) and code holders/applicants will make reasonable, good faith efforts to resolve such disagreements among themselves consistent with the guidelines prior to pursuing any appeal. Appeals may include but are not limited to one or more of the following options:

- The code holder/applicant will have the opportunity to resubmit the matter to the administrator(s) for reconsideration with or without additional input.

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12 A document, "Industry Notification of NPA Relief Activity Guidelines" (ICCF 92-1127-006), dated November 30, 1992, addresses the notification process after it has been decided that NPA relief is needed and when that relief must take place.

- Guidelines interpretation/clarification questions may be referred to the body responsible for maintenance of the guidelines. Unless otherwise mutually agreed to by the parties, these questions will be submitted in a generic manner protecting the identity of the appellant.

- The Code Administrator(s) and code holders/applicant may pursue the disagreement with the appropriate governmental/regulatory body.

Requests for modification of the guidelines can be pursued as described in Section 8 of the guidelines.

Reports on any resolution resulting from the above options, the content of which will be mutually agreed upon by the involved parties, will be forwarded to the body responsible for the maintenance of the guidelines. At minimum the report will contain the final disposition of the appeal, e.g., whether or not a code was assigned.

11. Glossary

Active Code	A code formally assigned by the Code Administrator(s) and implemented in the PSTN for specific routing or rating requirements.
Additional NXX Code Assignment for Growth	A code assigned to a switching entity or point of interconnection subsequent to the assignment of the first code (See: Initial Code), for the same purpose as a code that was previously assigned to the same switching entity or point of interconnection. A "Growth Code" is requested when the line numbers available for assignment in a previously assigned NNX/NXX code will not meet expected demand.
Additional NXX Code for New Purpose	A code assigned to a switching entity or point of interconnection subsequent to the assignment of the first code (See: Initial Code), due to a technical, billing, routing requirement that is different from the use of any code(s) that were previously assigned to the same switching entity or point of interconnection.
Authorized Representative of Code Applicant	The person from the applicant's organization or its agent that has the legal authority to take action on behalf of the applicant.
BRADS	Bellcore Rating Administrative Data System is a data base system that contains North American Numbering Plan (NANP) rating data including Canada and the Caribbean and, while not part of the NANP, also includes Mexico due to its proximity. This System generates the Terminating Point Master for billing purposes.
Central Office Code	The sub-NPA code in a telephone number, i.e., digits D-E-F of a 10-digit World Zone 1 address. Central office codes are in the form "NNX" or "NXX", where N is a number from 2 to 9 and X is a number from 0 to 9. Central office codes may also be referred to as "NNX codes", "NXX codes", or "NNX/NXX codes".
CLLI®	Common Language Location Identifier® is an eleven-character descriptor of a switch and is used for routing calls.

CO Code (NNX/NXX) Exhaust	A point in time at which the quantity of TN's within existing CO codes (NNX/NXX) which are "Available for Assignment" equals zero within a switching entity/POI or, conversely, when the quantities of "Working Telephone Numbers" plus "TN's Unavailable for Assignment" equal 10,000 times the quantity of existing CO codes (NNX/NXX) assigned to a switching entity/POI. Where CO code sharing occurs or partial CO codes are assigned to a switching entity/POI, the latter number should be adjusted accordingly.
Certify	(When used by the applicant): As part of the Central Office Code (NNX/NXX) Assignment request, to confirm, through a formal statement signed by the code applicant or an authorized representative, that the information contained within the assignment request is true, accurate, and complete to the best of his/her knowledge. (When used by the regulator): Where applicable, to authorize, in writing, an entity to provide a telecommunications service in the relevant geographic area. Such authorization is the responsibility of the appropriate regulatory agency.
COCUS	Central Office Code Utilization Survey (COCUS) is conducted annually by NANPA from direct input received from Central Office Code Administrator(s) in order to monitor central office code utilization, projected exhaust of NPAs and demand for new NPAs to provide code relief. The purpose of COCUS is to provide an annual overall view of both present and projected CO code (NNX/NXX) utilization for each NPA in the NANP.
Code Administrator	Entity(ies) responsible for the administration of the NXXs within an NPA.
Code Holder	The entity to whom a CO code (NNX/NXX) has been assigned for use at a Switching Entity or Point of Interconnection it owns or controls.
Code Protection	Code protection is an arrangement where a central office code assigned in one NPA is not assigned in an adjacent NPA, thereby becoming projected to allow 7-digit dialing across the common boundary.
Conservation	Consideration given to the efficient and effective use of a finite numbering resource in order to minimize the cost and need to expand its availability, while at the same time allowing the maximum flexibility in the introduction of new services, capabilities and features.
Effective Date	The date by which routing and rating changes within the PSTN must be complete for the assigned code. Also, the date by which the code becomes an active code.

INC	Industry Numbering Committee, a standing committee of the Industry Carriers Compatibility Forum (ICCF) that provides an open forum to adress and resolve industry-wide issues associated with the planning, administration, allocation, assignment and use of numbering resources and related dialing considerations for public telecommunications within the North American Numbering Plan (NANP) area.
Initial Code	The first geographic NXX code assigned at a unique switching entity or point of interconnection.
In Service	An active code in which specific subscribers or services are utilizing assigned telephone numbers.
Interchangeable NPAs	Refers to an industry plan to expand substantially the supply of Numbering Plan Area codes (NPAs) in January 1995, by removing the restriction that the second digit of the NPA must be a 0 or 1.
Jeopardy NPA	A jeopardy condition exists when the forecasted and/or actual demand for NXX resources will exceed the known supply during the planning/implementation interval for relief. Accordingly, pending exhaust of NXX resources within an NPA does not represent a jeopardy condition if NPA relief has been or can be planned and the additional NXXs associated with the NPA will satisfy the need for new NXX codes.
LATA	Local Access and Transport Area, also referred to as service areas by some BOCs, and serve two basic purposes: to provide a method for delineating the area within which the BOCs may offer services and, to provide a basis for determining how the assets of the former Bell System were to be divided between the BOCs and AT&T at divestiture.
LERG	Local Exchange Routing Guide: contains information about the local routing data obtained from the Routing Data Base System (RDBS). This information reflects the current network configuration and scheduled network changes for all entities originating or terminating PSTN calls with the NANP excluding Canada.
Major Vertical Coordinate	A five-digit number used with the Vertical Coordinates and Horizontal Coordinates to pinpoint the location of a rate center. The Vertical and Horizontal Coordinates can be used to calculate mileage measurements between two rate centers that is used to determine the appropriate mileage rates in determining the charge for message telephone service calls.

Major Horizontal Coordinate	A five-digit number used with the Vertical Coordinates and Horizontal Coordinates to pinpoint the location of a rate center. The Vertical and Horizontal Coordinates can be used to calculate mileage measurements between two rate centers that is used to determine the appropriate mileage rates in determining the charge for message telephone service calls.
Minor Vertical Coordinate	A five-digit number used with the Vertical Coordinates and Horizontal Coordinates to pinpoint a more specific location. The Minor Vertical and Horizontal Coordinates can be used to divide rate centers into zones for more specific distance calculations. Most often used to rate interstate messages when straight distance between the calling and called point is less than forty miles.
Minor Horizontal Coordinate	A five-digit number used with the Vertical Coordinates and Horizontal Coordinates to pinpoint a more specific location. The Minor Vertical and Horizontal Coordinates can be used to divide rate centers into zones for more specific distance calculations. Most often used to rate interstate messages when straight distance between the calling and called point is less than forty miles.
Months to Exhaust	= TNs Available for Assignment / Growth (Quantity of Lines added per Month)
NANP	The North American Numbering Plan is a numbering architecture in which every station in World Zone 1 is identified by a unique ten-digit address consisting of a three-digit NPA code, a three digit central office code of the form NNX/NXX, and a four-digit line number of the form XXXX.
NANPA	North American Numbering Plan Administration. With divestiture, key responsibilities for coordination and administration of the North American Numbering/Dialing Plans were assigned to NANPA. These central administration functions are exercised in an impartial manner toward all industry segments while balancing the utilization of a limited resource.

NPA

Numbering Plan Area, also called area code. An NPA is the 3-digit code that occupies the A, B, and C positions in the 10-digit NANP format that applies throughout World Zone 1. NPAs are of the form N0/1X, where N represents the digits 2-9 and X represents any digit 0-9. After 1/1/95, NPAs will be of the form NXX. In the NANP, NPAs are classified as either geographic or non-geographic.

a) Geographic NPAs are NPAs which correspond to discrete geographic areas within World Zone 1.

b) Non-geographic NPAs are NPAs that do not correspond to discrete geographic areas, but which are instead assigned for services with attributes, functionalities, or requirements that transcend specific geographic boundaries. The common examples are NPAs in the N00 format, e.g., 800.

NPA Code Relief

NPA code relief refers to an activity that must be performed when an NPA nears exhaust of its 640 NNX or the 792 NXX capacity. Relief is typically provided to an NPA about a year before its capacity is reached. NPA Code relief for an NPA that is nearing the 640 NNX limit is usually provided in the form of implementing interchangeable central office code (ICOC) which provides an additional 152 assignable central office codes. An NPA that has been implemented as ICOC has a capacity of 792 assignable NXX central office codes. Providing code relief to such an NPA normally takes the form of assigning a new NPA for an NPA split or overlay. Another option is changing the boundary of the existing NPA.

NPA Relief Date

The date by which the NPA is introduced and routing of normal commercial traffic begins.

OCN

This RDBS field contains either an alphanumeric company identifier or Operating Company Number (OCN) and identifies the company responsible for routing the CO code (NNX/NXX) (and other numbering resources), within the local exchange network . OCNs, standardized in the ranges 0000-5999 and 9000-9999, are assigned and maintained by the National Exchange Carriers Association (NECA).

Company identifiers in the range 6000-8999 are selected by Bellcore for use in the OCN field to identify Canadian companies, companies in the NPA 809 and other companies who are not members of NECA.

Alphanumeric company identifiers also have been selected by Bellcore for companies with numeric OCNs, e.g., interexchange carriers with a 3-digit COMMON LANGUAGE® Interexchange Access Customer Code (IAC) which is preceded by the letter I.

Point of Interconnection (POI)	For the purposes of these guidelines, the physical location where the local exchange carrier connecting circuits interconnect with the wireless carrier's facilities for the purpose of interchanging traffic. Alternatively, the local exchange carrier and wireless carrier may agree to the establishment of virtual POI(s) within the same NPA and/or LATA in which there is an already established physical POI. A virtual POI is the effective location designated by the wireless carrier for the purpose of determining rate center assignment associated with an NXX code(s).
Premature Exhaust	(When referring to NANP): Premature exhaust means the exhaust of NANP resources (i.e., requires expansion beyond the 10-digit format) much sooner than the best industry projections. The NANP is expected to meet the numbering needs of the telecommunications industry well into the 21st century (i.e., a minimum of 25 years). (When referring to NPA): Premature exhaust is when a specific date for NPA relief has been established and the NPA is projected to exhaust prior to that date.
Private Networks	Private networks are composed of stations which are not directly accessible from all PSTN stations via the use of NANP E.164 numbers.
PSTN	Public Switched Telephone Network. The PSTN is composed of all transmission and switching facilities and signal processors supplied and operated by all telecommunications common carriers for use by the public. Every station on the PSTN is capable of being accessed from every other station on the PSTN via the use of NANP E.164 numbers.
Rate Center	A geographically specified point used for determining mileage-dependent rates for PSTN calls.
RDBS	The Routing DataBase System (RDBS) contains a complete description of all Local Exchange Companies' networks in World Zone 1 (except, currently Canada) and pertinent information relating to the networks of other code holders. This provides information for, (1) message routing, (2) common channel signaling call setup routing, and (3) operator service access routing.
Reassignment	Refers to the transfer of a working or assigned NXX from one switching entity/POI to another.
Reserved CO Codes	A code that has been identified and set aside by the Code Administrator(s) for some specific use or purpose. This code is not available for assignment but neither has it been officially assigned by the Code Administrator(s) to an entity.
Set-aside code	(To be provided)

This draft revision has been approved for initial closure but does not replace the approved version dated 7/14/93

Service Providers	Any entity that is authorized, as appropriate, by local governmental, state, federal or World Zone 1 governmental authorities to provide communications services to the public.
Switching Entity	An electromechanical or electronic system for connecting lines to lines, lines to trunks, or trunks to trunks for the purpose of originating/terminating PSTN calls. A single switching system may handle several central office codes.
Technical Requirement	A limitation of the Point of Interconnection or Switching Entity where an existing code and/or numbers cannot be used for designated network routing and/or rating of PSTN calls.
Terminating Point Master	The TPM contains all the active NPA and CO code (NNX/NXX) combinations in the NANP and for each of these points the following is provided: Major Vertical and Horizontal coordinates, LATA/LATA-like code, LATA subzone code, RAO code, place and state, province or country name abbreviation, and time zone indicator.
TN's Available for Assignment	The quantity of telephone numbers within existing CO codes (NNX/NXX) which are immediately available for assignment to subscriber access lines or their equivalents within a switching entity/POI.
TN's Unavailable for Assignment	The quantity of telephone numbers within existing CO codes (NNX/NXX) which are neither "Working Telephone Numbers" as defined below, nor available for new assignments as working telephone numbers within a switching entity/POI. Examples include numbers required for maintenance testing, numbers reserved for specific customers or specific services, disconnected numbers on intercept, pending connects or disconnects, etc.
Working Telephone Numbers (TN's)	The quantity of telephone numbers within existing CO codes (NNX/NXX) which are assigned to working subscriber access lines or their equivalents, e.g., direct inward dialing trunks, paging numbers, special services, temporary local directory numbers (TLDNs), etc., within a switching entity/POI.
World Zone 1	Consists of United States, Canada and the Caribbean Countries currently within NPA code 809.

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AUDITS

I. Purpose

As noted in Section 2 of the guidelines, audits will be performed in conjunction with the CO code (NNX/NXX) assignment process. These audits would be expected to:

(1) Ensure uniformity in application of these guidelines by a Code Administrator to all code requests received by that Code Administrator.

(2) Ensure consistent application of these guidelines among all Code Administrators in the event there is more than one Code Administrator.

(3) Ensure compliance with these guidelines by code applicants and Code Administrator(s), and.

(4) Ensure the efficient and effective use of numbering resources by code applicants/holders and management of numbering resources by Code Administrator(s).

II. Audit Scope

To achieve the full benefits of the audit process, it is expected that both Code Administrator(s) and code applicants/holders will be subject to audits. Audits will:

(1) Encompass (at a minimum) a review of appropriate supporting documentation and/or assignment procedures,

(2) Conducted at the code applicant's/holder's or Code Administrator(s) location or at a mutually agreed to location, and,

(3) Provide confidentiality for the code applicant/holder or Code Administrator(s) by precluding the copying or removal of the information from the location and ensure non-disclosure of the information to parties outside of the audit process.

III. Auditor Qualifications

While this Appendix does not specifically address what entity(ies) will perform the audit, it is imperative that any auditor possess certain characteristics. First, the independence of the auditor must be maintained. Second, the auditor should be an independent third party.[1] Third, the auditor must be competent in the use of and application of standard audit procedures. Finally, any auditor must have knowledge of the CO code (NNX/NXX) assignment process which is to be audited. These qualifications should ensure that the benefits to be obtained from the audit process are indeed realized.

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1 For the purpose of these Guidelines, an independent auditor is an entity that directly or indirectly does not have substantial ownership or control, nor is substantially owned or controlled by a CO code (NNX/NXX) applicant/holder or a Code Administrator(s).

IV. Audit Principles and Benchmarks

To achieve the benefits of an audit process, various principles and benchmarks contained within these guidelines should be considered during an audit. These principles are reflective of the anticipated benefits of an audit while the benchmarks provide an objective measurement of the degree to which the principles are being met. Examples of these principles and the associated benchmarks are as follows:

Code Administrator(s):

1. Principle: Impartial/consistent response to requests

   Benchmarks: (a) Responding to requests within 10 business days.
   (b) Comparable response to like requests.
   (c) Maintenance of records and code requests

2. Principle: Uniformity in code management practices

   Benchmarks: (a) Provides data for COCUS studies.
   (b) Monitors the number of NXXs assigned in an NPA for which they are responsible, and notifies NANPA of an significant changes in jeopardy situations.
   (c) Implementing jeopardy NPA procedures.

3. Principle: Consistent treatment and safeguarding of confidential information

   Benchmarks: (a) Maintains records in a secure environment.
   (b) Documents and uses any specific process to ensure confidentiality.

4. Principle: Consistent approach/response to code reservations

   Benchmark: Retains records of reservations.

Applicants:

1. Principle: Substantiation of certification

   Benchmarks: (a) Verifies nature of service provided relative to NXX requests.
   (b) Verifies regulatory authority, as appropriate.

2. Principle: Uniformity in code management practices

   Benchmarks: (a) Substantiates months to exhaust determination.
   (b) Forecasts code requirements.
   (c) Implements jeopardy NPA procedures.

It should be noted that various forms/reports identified in these guidelines should facilitate the review of the benchmarks identified above.

V. Use of Audits

Audit results should be used to identify and recommend to the appropriate organization(s) specific corrective actions that may be necessary.

Examples of specific corrective actions which may result from the audit process are as follows:

- Modifications to the guidelines
- Additional training for Code Administrator(s) and/or code applicants/holders
- Assignment or return of codes
- Requiring supporting documentation of future code requests in non-compliant situations
- Process modifications to Code Administrator(s) and/or code applicants/holder maintenance of records for code and/or number assignments

VI. Further Considerations

During the development of this Appendix it was recognized that additional considerations related to the audit process must be addressed and resolved.

Implementation of these guidelines is not contingent upon completed audit methodology, nor does the completion of these guidelines in any way diminish the importance of completing the audit procedures. Recognizing the importance of the audit process, the following list of questions have been developed and prompt resolution is sought:

(1) Should a single auditor or multiple auditors perform the audits function? Who should determine this? What should the process be for selection?

(2) How often should audits be performed?

(3) When should audits be performed?

(4) How should the audits be funded?

(5) Where should the audits be conducted?

(6) What duration or limits, if any, will be placed on audits?

(7) What should the tenure be for the auditor(s)?

The attached Audit Methodology Matrix is included only to illustrate potential examples of an audit methodology. This chart has been forwarded along with a complete copy of these guidelines to the ICCF, where an audit methodology will be more fully developed. This chart is therefore subject to revisions based on the results achieved by the ICCF.

AUDIT METHODOLOGY MATRIX

WHEN AN AUDIT IS DONE	PURPOSE[1]	WHO IS AUDITED	WHO PAYS
5-6 years in advance of NPA exhaust	Code Relief Item 4	Both Code Administrator(s) and applicants	Industry[2]
Every 12-18 months	Operational review for consistency Item 1 & 2	Code Administrator(s)	Industry
Statistically valid random sample of all applicants (%) (e.g., each applicant at least once every 5 years, or every 3 years	Compliance with requirements Code conservation Item 3	Applicants	Industry
Initiated by Administrator	Resolution of potential disputes Confirmation that stated need exists Items 2 & 4	Applicant	If significant findings against applicant, applicant pays - if not, administrator pays
Initiated by Applicant	Ensure uniform application of guidelines to all applicants by all Code Administrator(s) Items 1 & 2	Code Administrator(s)	If significant findings against administrator, administrator pays - if not, applicant pays
Initiated by auditor, random selection, triggered by number of requests	At submission of application form Ensure need Items 3 & 4	Applicant	Industry
Random selection triggered by number of assignments	At completion of requests processed Ensure compliance Items 3 & 4	Code Administrator(s)	Industry

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1 Items shown in this column refer to corresponding items in Section I of this Appendix.

2 NOTE: Segments comprising "industry" may vary in different situations.

MONTHS TO EXHAUST CERTIFICATION WORKSHEET[1]

(Worksheet to be used for Requests for Additional Codes for Growth)

Date: _____

Company Name: _____

Switching Entity/Point of Interconnection (CLLI): _____

NPA: _____ NXXs included in growth calculation: _____

Signature of Authorized Representative of Code Applicant: _____

Title: _____ Telephone No.: _____ FAX No.: _____

A. Telephone Numbers (TNs) Available for Assignment (See Glossary[2]): _____

	Month #1	Month #2	Month #3	Month #4	Month #5	Month #6
B. Previous 6-month growth history[3]:	_____	_____	_____	_____	_____	_____
C. Projected growth - Months 1-6[4]:	_____	_____	_____	_____	_____	_____
Projected growth - Months 7-12[4]:	_____	_____	_____	_____	_____	_____

D. Average Monthly Growth Rate (From Part C above): _____

E. Months to Exhaust = $\frac{\text{Telephone Numbers (TNs) Available for Assignment (A)}}{\text{Average Monthly Growth Rate (D)}}$ = _____[5]

Explanation:

_____

_____

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1 This Worksheet, or its equivalent, is not required to be submitted to the Code Administrator; for audit purposes it must be in the applicant's files.

2 Definitions of terms may be found in the Glossary section of the Central Office Code (NNX/NXX) Assignment Guidelines.

3 Telephone Numbers (TNs) assigned in each previous month, starting with the most distant month as Month #1, and Month #6 as the current month.

4 TNs assigned in each following month, starting with the most recent month as Month #1. In a jeopoardy situation, only 6 months growth projection is required.

5 To be assigned an additional CO Code (NNX/NXX) for growth, "Months to Exhaust" must be less than or equal to 12 months for a non-jeopardy NPA (See Section 4.2.1 of the Guidelines), or less than or equal to 6 months for a jeopardy NPA (See Section 7.4(c) of the Guidelines).

APPENDIX B

Bellcore

BRADS
Change Notification For Billing And Operator Information

Company Information

NPA | State Abb. | State Name or Postal Purpose NPA Name

Company Number | Company Name

Billing Information

Transaction Indicator: ☐ Change ☐ New ☐ Delete | Effective Date (Month–Day–Year)

NXX | NXX Type | IDDD ☐ Yes ☐ No | Distance ☐ Yes ☐ No | Daylight Savings ☐ Yes ☐ No

Non Distance NPA | RAO | CNA | Bill. Cit. | LATA | Sub Zone | Time Zone | Type of Company

Place Name Coordinates | Major Vertical | Major Horizontal | Minor Vertical | Minor Horizontal

Place Name

Place (Cont.) | State Abb.

Locality Name

Loc (Cont.) | State Abb.

Rate Center Name

R C (Cont.) | State Abb. | New Rate Center ☐ Yes ☐ No

Operator Information

Mark Sense | Number

Abbrev/Identification | Series No. | State | No.

Prepared By	Name		Title
	Tel. No.	Date (MM/DD/YY)	Department
Reviewed By	Name		Title
	Tel. No.	Date (MM/DD/YY)	Department
Authorized By	Name		Title
	Tel. No.	Date (MM/DD/YY)	Department