National Urban Digital Mission (NUDM)

Fire NOC

KNOWLEDGE STANDARD

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National Urban Digital Mission (NUDM)

Over the past two decades, India has witnessed the role of technology as an enabler for development and progress. India is poised to lead the digital revolution and our cities can be the primary beneficiary. Our ability to seamlessly adopt emerging technologies into urban governance holds the key to a powerful story of transformation in India's journey towards becoming an economic powerhouse. Responding to this pressing necessity, National Institute of Urban Affairs is instituting the Centre for Digital Governance (CDG), an initiative to convene the digital efforts of the Ministry of Housing and Urban Affairs and also consolidate its existing efforts. National Urban Digital Mission (NUDM) launched in February 2021, aims to build a shared digital infrastructure that will strengthen the capacity of the urban ecosystem to solve complex problems at scale and speed. Thus improve the ease of living for citizens through accessible, inclusive, efficient and citizen centric governance across India's 4800 towns and cities. The NUDM inherits the guiding principles of the National Urban Innovation Stack (NUIS) - Strategy and Approach paper, released by MoHUA in 2019 as a vehicle to accelerate the ecosystem for urban transformation.

One of the key deliverables under NUDM is the creation/ adoption of standards which will enable improved information consistency, analytics, secure data access & transfer, smarter business processes; while also enabling diverse stakeholders to collaborate and their corresponding platforms and processes to interoperate seamlessly. The following standards (in various stages of development/ adoption) are applicable for NUDM:

1. Municipal Governance Reference Architecture as a reference blueprint for platforms
2. Knowledge Standards with key data elements and their standardized data interpretation
3. API definitions for standardized integration with the National Dashboard
4. Security Assurance Standards for enabling data privacy controls
5. National meta-data standards for metadata management & data quality enablement at state & national dashboards

Out of these, the Municipal Municipal Governance Reference Architecture[1], Security Assurance standards[2] and Property Tax Knowledge Standard[3] have already been published and are available for download. National Metadata Standard[4] has been published by the Government of India.

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[1] IS 18006 : Part 1 : 2021 - Municipal Governance Reference Architecture available online at https://standardsbis.bsbedge.com/BIS_SearchStandard.aspx?Standard_Number=18006&id=0
[2] IS 17428 : Part 1 : 2020 - Data Privacy Assurance Part 1- Engineering and Management Requirements and IS17428: Part 2: 20202 - Data Privacy Assurance Part 2 Engineering and Management Guidelines
available online at https://standardsbis.bsbedge.com/BIS_SearchStandard.aspx?Standard_Number=IS+17428&id=0
[3] IS 18006 : Part 3 : Sec 1 : 2021 - Municipal Governance - Part 3 Property Tax - Section 1 Taxonomy available online at https://standardsbis.bsbedge.com/BIS_SearchStandard.aspx?Standard_Number=18006&id=0
[4] Data Dissemination: National Metadata Structure (NMDS) For Statistical Products available online at http://mospi.nic.in/sites/default/files/main_menu/citizen_charter/National%20Metadata%20Stucture%20-%20v3.pdf

NUDM Knowledge Standards

Need for Knowledge Standards

ULBs across India have different terminology and vocabulary for Urban Governance. This is due to inherited and new state laws and different municipal governance system implementations. Lack of uniform knowledge of important data elements and clear vocabulary for urban governance terms, leads to the inability to share & interpret data uniformly and/or compare Urban Local Body (ULB) performances.

Knowledge standards typically have the following applications

- Knowledge standards help us in identifying and categorizing important data elements for a domain
- Knowledge standards help in resolving differences in terminology for Urban Governance
- Knowledge standards can be used to analyze current city domain models, processes, reports & KPIs; thus, retrofitting existing data models with missing data

Governing principles in Design of Knowledge standard

Normally information taxonomy preparation begins by asking the following questions (Earley, 2015)[5] (Earley, 2015):

- What are all of the things that you interact with on a day-to-day basis?
- What are all of the processes that you engage with, applications you interact with, and people you speak to, both internally and externally?
- How do those people, processes and technologies interact?
- Information linkages identification.

To ensure this taxonomy fits the needs of interested stakeholders the following principles have been followed in designing it.

Minimalist: The standards are designed to have minimum base elements common across ULBs to ensure interoperability, harmonization and data driven governance. These can then be adopted and built upon by some ULBs with higher process complexities.

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[5] Earley, S. (2015, August 18). Why Information Taxonomy Must Represent the Landscape of the Business. From www.earley.com: https://www.earley.com/insights/why-information-taxonomy-must-represent-landscape-business

Evolvable: The standard is designed to evolve over a period of time thereby adapting to changing needs and emerging technologies thus making the system comprehensive progressively.

Modular: The classifications and categorizations in the knowledge standard are designed modularly, yet they function together as a whole. They are independent and self-contained and may be combined and configured with similar units to suit disparate contexts. E.g., The Property "Use" element and its sub classifications can be easily reapplied in the context of any Building Plan Approval System or Fire NOC System.

Extendible: The standard is designed to be exhaustive and the elements of Urban Governance are positioned in a hierarchy which can accommodate both horizontal and vertical additions. This leaves room wider adoption and innovation to suit contexts of any ecosystem. The end goal is to build a knowledge practice that supports Open Standards with the Data Element taxonomy as a base.

Open: The standard is designed to be 'open' to enable wider ecosystem participation and use.

How to read this document?

Section 2.1 captures Key data elements associated with the Fire NOC Data Entity.

Section 2.2 captures key channels of transactions i.e., new application/ grievance registration/ payment etc.

Section 2.3 captures key stakeholders involved in Fire NOC service delivery

Section 2.4 captures key processes within the Fire NOC domain with clearly defined input & output data elements

Section 2.5 captures key Reports and KPIs that ULBs and states/UTs are encouraged to use.

All direct sub-classifications and components captured in the taxonomical hierarchy are shown as normal text (For Ex: "2.1.1 Fire NOC ID")

In processes section (section 2.4),

- Input criteria (whether from citizen or ULB) of the process is shown in *italics text* (For Example *"2.1.11 Fire NOC Type")*
- Output of the process is shown in **Bold text** (For example "**2.4.1.6 Demand Balance Collection Register**")

- Direct sub-classifications or sub-components are shown as normal text (For Example 2.4.4.1.1 Types of Assessment classification has 2.4.4.1.1 Issue of New Certificate sub-classification (all depicted in normal text)

Diagrams:

Domain is depicted as ⬜ for e.g. Fire NOC

Data Entities are depicted as ⬜ for e.g. Fire NOC

Channels are depicted as ⬜ for e.g. Fire NOC Channels

Stakeholders are depicted as ⬜ for e.g. Stakeholder Matrix

Processes are depicted as ⬜ for e.g. Application Creation, Acknowledgement

Reports & KPIs are depicted as ⬜ for e.g. Demand Balance Collection Register

How to use this knowledge standard?

Fire NOC Knowledge standard can be used in 3 different ways:

1. Direct application by storing, generating and using these important data elements (entities, stakeholders, processes & reports) in day-to-day operations

Example 1: ULB Officials add channel through which an application was received and ULB type in the Fire NOC application data model while acknowledging and processing the Application/ Assessment request received from the Fire NOC service application/ CSCs.

Example 2: Application form for a New Fire NOC Application also collects Property ID (PID) of the property for which the NOC is requested. This PID can further be used to fetch property details like use, location, ownership, tax payment details – making need of bulky service forms redundant. This will also result in re-use and harmonization of data across departments.

Example 3: Monitoring of application by their status, their SLB adherence and channels from which the transaction happens and the DCB register empowers ULB Officials to take corrective and preventive steps as needed.

2. Indirect application by using these data elements in evidence-based governance and long-term planning

Example: Analyzing Fire NOC applications by the certificate status and their locations may help the ULB in preparing its response to fire incidents in a better manner. It can also help in planning the inspection schedules better with respect to the types of regulations needed.

3. Information consistency by using these data elements while using and sharing data (via Metadata tags in reports and dashboard)

Example: Consistent use of Data elements, processes, KPIs and their definitions from this Knowledge Standard helps in implementing Information consistency across ULBs. To ensure information consistency, while ULBs may use new or existing platforms while delivering Fire NOC services, they should use Metadata tags from the data elements defined in this knowledge standard.

It may be noted that

1. The data elements described in this knowledge standard are not complete and ULBs may add/ remove data elements as per actual need.
2. ULBs and their technology partners are however against modifying the data elements while using these as Metadata tags i.e., Application ID should be shared as 'Application ID' and not 'App ID' or 'Appln ID' in the ULB reports.

Revisions to the document

This is planned to be a working document. It will be revised regularly to guarantee that the knowledge standard incorporates learnings from various implementations and learning cycles as they progress and remain relevant. Amendments and regular updates to its text and indicators are to be expected on a continuous basis.

No Sub-License Allowed

Fire NOC Knowledge Standard is developed as open standard under NUDM by NIUA. No part(s) of the document can be sublicensed further by any other organization. Any attempted sublicense, whether voluntarily or otherwise, shall be null and void, and will attract penal actions.

Abbreviations

BIS	Bureau of Indian Standards
CDG	Centre for Digital Governance
COA	Council of Architecture
CSC	Common Service Centre
DTMF	Dual Tone Multi-Frequency
FAR	Floor Area Ratio
ICT	Information and Communication Technology
ID	Identification Document/Number
IVR	Interactive Voice Response
KPI	Key Performance Indicators
MBBL	Model Building Bye Laws
MoHUA	Ministry of Housing & Urban Affairs
NBC	National Building Code
NIUA	National Institute of Urban Affairs
NOC	No Objection Certificate
NUDM	National Urban Digital Mission

NUGP	National Urban Governance Platform
O&M	Operation & Maintenance
PID	Property Identification Number
PTIN	Property Tax Identification Number
SLB	Service Level Benchmark
SLG	Service Level Guarantee
SMS	Short Message Service
ULB	Urban Local Body/Bodies
UPIC	Unique Property Identification Code
UT	Union Territory
W&S	Water & Sewerage

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Ministry of Housing and Urban Affairs
Government of India

NIUA
National Institute of Urban Affairs

आज़ादी का
अमृत महोत्सव

Fire No Objection Certificate

The fire services are a state subject and has been included as a municipal function in the XII Schedule of the Constitution of India under Article 243 (W). It is therefore primarily the responsibility of the State Governments to ensure safety of life and property in their area of jurisdiction. States/Union Territories (UTs) are implementing fire safety measures either through the provisions as stipulated in the State Fire Services Act or through their building bye-laws. The construction of any building such as public buildings, guest house, restaurants and fire safety thereof have to be ensured as per the norms and standards prescribed by the State Building Bye Laws/ Development Control Regulations of the States / UTs.

The Model Building Bye Laws 2016, issued by Ministry of Housing and Urban Affairs, have been prepared for guiding the States / UTs for revising their respective Building Bye Laws and it also contains a chapter on fire protection and fire safety requirements which prescribes the norms and standards for fire protection. Its effective enforcement is in the domain of the States/ UTs. The department of Fire Services in the States/UTs is one of the agencies to issue No Objection Certificate (NOC) to the building from fire and life safety aspects and it is for the State/UT Governments to provide stringent norms for issuing NOC for the same[6] (Ministry of Home Affairs, 2019).

1.1 Background

As per municipal bye laws it is mandatory to seek prior approval from the concerned local body before the start of construction or post construction of any project within its jurisdiction. However, during the process of approval various other NOCs and approvals from autonomous bodies and ministries are required without which final local body approval cannot be obtained. These NOCs/approvals may vary from local body to local body. A ready reckoner for architects/planners is drafted and readily available at the ULBs in the form of checklists that may help the designers to incorporate the provisions required for approval.

As part of National Urban Digital Mission (NUDM), NIUA is also offering a platform NUGP to states which offers Fire NOC Issuance functionality using Fire NOC module.

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[6] Ministry of Home Affairs. (2019). Amendments In Building Bye-Laws to Improve Fire Safety. Rajya Sabha.

1.2   Who is Responsible?

The Fire NOC is issued by the fire department at ULB after verifying and auditing the building's fire resistance and fire safety mechanism which should be at par with the fire safety standards and guidelines as mandated by The Bureau of Indian Standards (BIS) and respective state government.

2   Taxonomy for Fire NOC

Taxonomy for Fire NOC tries to capture the most important entities, their properties, categories, subcategories, parameters, and specifications within this domain as well as other associated areas. Sub-sections in Section 2 also define all the key terms in the Fire NOC domain comprehensively.

A well-structured Fire NOC taxonomy helps by:

- ✓ Identification and regulation of NOC enabling effective enforcement and regulation
- ✓ Building accountability and ensuring transparency
- ✓ Building confidence among the citizens, encouraging them to abide with the regulations for their safety
- ✓ Identification and process key data elements to enable evidence-based decision & policy making

2 Taxonomy for Fire NOC

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FIGURE 1 TAXONOMY OF FIRE NOC

2.1 Fire NOC

Fire NOC is a document issued by the respective ULBs which certifies that a building is resistant and is unlikely to observe any fire related accidents. By meeting certain guidelines laid down by the fire department, an applicant can obtain NOC for his/her residential or commercial building. Sub-components in this section describe important components of a Fire NOC entity.

2.1.1 Fire NOC ID

A Fire NOC ID is the unique identifier allotted to a Fire NOC document by the ULB for the purpose of NOC record management. Typically, the Fire NOC ID is generated after the completion of assessment, inspection of the property by the ULB officials, payment of Fire NOC fees by the applicant and subsequent approval by the ULB.

2.1.2 Application ID

An application ID is a unique application identifier that is generated after submitting the application form successfully. The application ID can be used to check status of the filled application, get duplicate bills, receipts etc.

2.1.3 Applicant Details

Applicant details means the details of individual or group of individuals who holds the Fire NOCs for the building such as name of all partners, mobile numbers, addresses, age, proofs of identity, email ids, photographs and partnerships.

2.1.4 Professional on record details

This means the details of the professional of the building who is responsible for drafting or approving the building layout plan before submitting it to the ULB such as name of the professional, address of the professional, email id or mobile number of the professional etc. The professional could be fire safety expert, architect, designer etc.

2.1.5 Building details

Building is any structure for whatsoever purpose and of whatsoever materials constructed and every part thereof whether used as human habitation or not and includes foundation, plinth, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms, verandah, balcony, projection[7] (National Building Code Sectional Committee, CED 46, 2016).

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[7] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.

Building details in a NOC includes physical attributes of the building such as area, built-up space, number of floors, etc. which are used during assessment process. A Fire NOC should be linked with property ID to fetch relevant property details from municipal property system and online building approval system respectively.
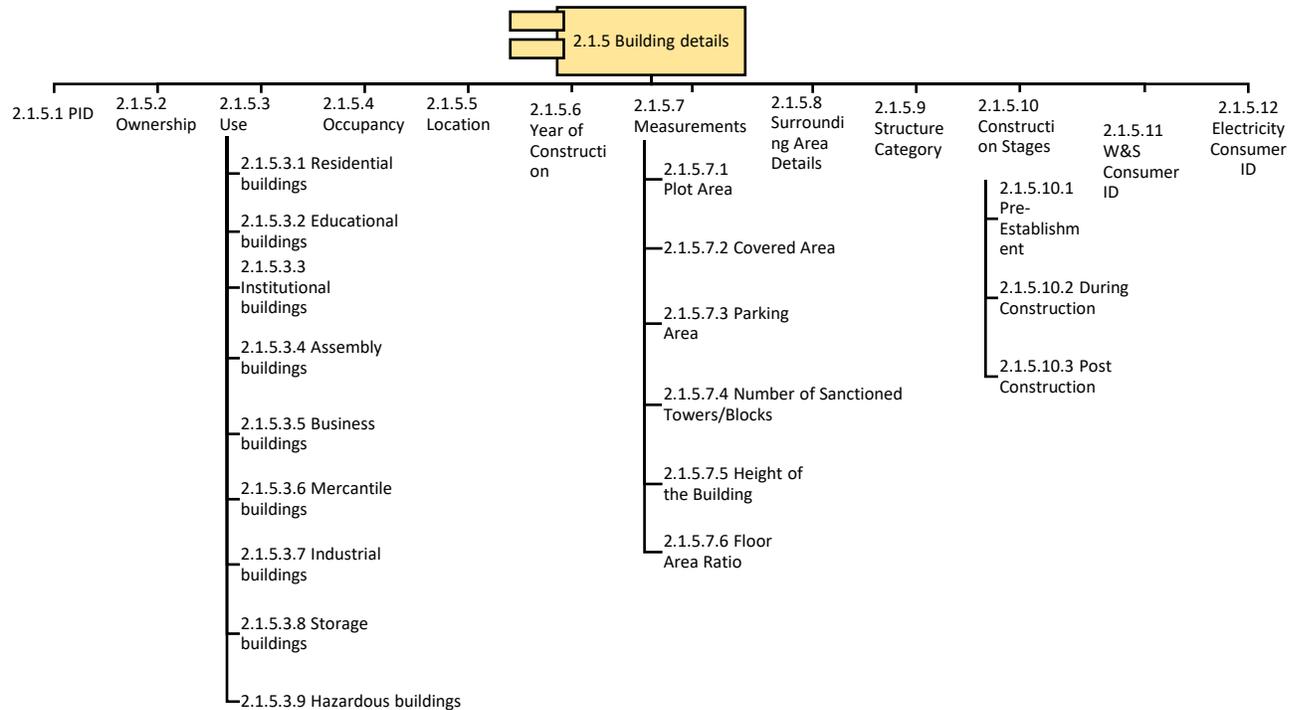
FIGURE 2 TAXONOMY OF BUILDING DETAILS

2.1.5.1 PID

A property ID (PID) or Property Tax Identification Number (PTIN) or Unique Property Identification Code (UPIC) is the unique identification number allotted to a property by the ULB for the purpose of property tax records. Typically, the PID/ PTIN is generated after the first-time enumeration of the property and its verification by the ULB officials.

2.1.5.2 Ownership

Property ownership is the state or fact of exclusive rights and control over immovable property. Property may be owned by individuals or organizations.

2.1.5.3 Use

The purpose to which a property is being put to use is again a vital characteristic that defines the entity 'Property'. It determines factors like the rate of property tax, Fire NOC etc. The usage of the building for which a Fire NOC is applied can be residential buildings, educational buildings, institutional building or any other as defined by the ULB rules.

2.1.5.3.1 Residential buildings

Residential buildings include any building in which sleeping accommodation is provided for normal residential purposes with or without cooking or dining or both facilities except as mentioned in section 2.1.5.3.5 of this document. These can be subdivided as follows[8] (National Building Code Sectional Committee, CED 46, 2016);

- Lodging or rooming houses
- One- or two-family private dwellings
- Dormitories
- Apartment houses (flats)
- Hotels
- Hotels (starred)

2.1.5.3.2 Educational buildings

These shall include any building used for school, college, other training institutions, for day care purposes involving assembly for instructions, education or recreation for not less than 20 students. These can be subdivided as follows[9] (National Building Code Sectional Committee, CED 46, 2016);

- Schools up to senior secondary levels
- All other/training institutes under single management with no less than 100 students

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[8] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.
[9,10,] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.

2.1.5.3.3 Institutional buildings

These shall include any building or part thereof which is used for purposes, such as medical or other treatment or care of persons suffering from physical or mental illness, disease or infirmity; care of infants, convalescents or aged persons and for penal or correctional detention in which the liberty of the inmates is restricted. Institutional buildings may provide sleeping accommodation for the occupants. These can be subdivided as follows[10] (National Building Code Sectional Committee, CED 46, 2016);

- Hospitals and sanatoria
- Custodial institutes
- Penal and mental institutes

2.1.5.3.4 Assembly buildings

These shall include any building or part of a building, where number of persons not less than 50 gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes, for example, theaters, motion picture houses, assembly halls, museums, skating, rinks, gymnasiums, restaurants, places of worship, dance halls, club rooms, passenger stations and terminals of air, surface and marine public transportation services recreation piers and stadia etc. These can be subdivided as follows[11] (National Building Code Sectional Committee, CED 46, 2016);

- Buildings having a theatrical or motion picture or any other stage and fixed seats for over 1000 persons
- Buildings having a theatrical or motion picture or any other stage and fixed seats for up to 1000 persons
- Buildings without a permanent stage having accommodation for 300 or more persons but no permanent seating arrangement
- Buildings without a permanent stage having accommodation for less than 300 persons with no permanent seating arrangements
- All other structures including temporary structures designed for assembly of people not covered by other sub divisions
- Building having mixed occupancies providing facilities such as shopping, cinema theaters and restaurants
- All other structures elevated or underground, for assembly of people not covered

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[11] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards

2.1.5.3.5 Business buildings

These shall include any building or part of a building which is used for transactions of business other than covered in section 2.1.5.3.1 of this document. These can be subdivided as follows[12] (National Building Code Sectional Committee, CED 46, 2016);

- Offices, banks, professional establishments, like offices of architects, engineers, doctors, lawyers and police stations
- Laboratories, research establishments, libraries and test houses
- Computer installations
- Telephone exchanges
- Broadcasting stations and TV stations

2.1.5.3.6 Mercantile buildings

These shall include any building or part of a building which is used as shops, stores, market, for display and sale of merchandise, either wholesale or retail. These can be subdivided as follows[13] (National Building Code Sectional Committee, CED 46, 2016);

- Shops, stores, departmental stores markets with area up to 500 m^2
- Shops, stores, departmental stores markets with area more than 500m ^{2}
- Underground shopping centers, storage and service facilities incidental to sale of merchandise and located in the same building shall be included under this group

2.1.5.3.7 Industrial buildings

These shall include any building or part of a building or structure, in which products or materials of all kinds and properties are fabricated, assembled, manufactured or processed for example, assembly plants, industrial laboratories, dry cleaning plants, power plants, generating units, pumping stations, fumigation chambers, laundries, buildings or structures in gas plants, refineries, dairies and saw mills etc. These can be subdivided as follows[14] (National Building Code Sectional Committee, CED 46, 2016);

- Buildings used for low hazard industries
- Buildings used for moderate hazard industries
- Buildings used for high hazard industries

[12,13] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.

[14] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.

2.1.5.3.8 Storage buildings

These shall include any building or part of a building used primarily for the storage or sheltering (including servicing, processing or repairs incidental to storage) of goods, ware or merchandise (except those that involve highly combustible or explosive products or martials) vehicles or animals, for example warehouses, cold storage, freight depots, transit sheds, storehouses, truck and marine terminals, garages hangers, grain elevators, barns and stables. Storage properties are characterized by the presence of relatively small persons in proportion to the area[15] (National Building Code Sectional Committee, CED 46, 2016).

2.1.5.3.9 Hazardous buildings

These shall include any building or part of a building which is used for the storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and or which may produce poisonous fumes or explosions for storage, handling, manufacturing or processing which involve highly corrosive, toxic or noxious alkalis, acids or other liquids or chemicals producing flames, fumes and explosive, poisonous , irritant or corrosive gases; and for the storage , handling or processing of any material producing explosive mixtures of dust which result in the division of matter into fine particles subject to spontaneous ignition[16] (National Building Code Sectional Committee, CED 46, 2016).

2.1.5.4 Occupancy

The principal occupancy for which a building or a part of a building is used or intended to be used; for the purposes of classification of a building according to occupancy, occupancy shall be deemed to include the subsidiary occupancies which are contingent upon it[17] (National Building Code, 2016).

2.1.5.5 Location

Location (address of the building) provides the particulars of the place where the building is situated such as ward, zone, tehsil in which the building is located, nearby fire station etc. It also indicates the GIS positioning of a property with respect to the urban base map.

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[15] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards
[16] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.
[17] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.

2.1.5.6 Year of Construction

This means the year in which the construction of the property mentioned in the Fire NOC application has been completed.

2.1.5.7 Measurements

Measurements of a property are values discovered by measuring the corresponding size, shape and/or area of property. For a building whose Fire NOC is needed, applicant needs to provide information and evidence related to plot area, covered area, parking area, number of sanctioned towers, height of the building or any other measurements related to the building that are required for provisioning of fire & life safety.

2.1.5.7.1 Plot Area

Plots to be used for high rise development should be located in an approved layout plan, comprehensive plans or sub division plans as prepared and approved by competent authorities/ as per policy of the Government of India / State Governments.[18] (Ministry of Housing and Urban Affairs, 2016).

2.1.5.7.2 Covered Area

The ground area covered immediately above the plinth level covered by the building but does not include the space covered by[19] (Ministry of Housing and Urban Affairs, 2016):

- Garden, rockery, well and well structures, plant nursery, water pool, swimming pool (if uncovered), platform round a tree, tank, fountain, bench, chabutra with open top and unenclosed on sides by walls and the like;
- Drainage culvert, conduit, catch-pit, gully-pit, chamber, gutter and the like;
- Compound wall, gate, slide/ swing door, canopy, and areas covered by *chajja* or similar projections and staircases which are uncovered and open at least on three sides and also open to sky

2.1.5.7.3 Parking Area

Total ground area covered by the building for parking facility inside the premises.

[18,19] Ministry of Housing and Urban Affairs. (2016). Model Building Bye-Laws. Ministry of Housing and Urban Affairs. From https://mohua.gov.in/upload/uploadfiles/files/Chap-7.pdf

2.1.5.7.4 Number of Sanctioned Towers/Blocks

This means number of towers or blocks sanctioned as per the building regulations, master plan or bye laws by the ULBs.

2.1.5.7.5 Height of the Building

The vertical distance measured i) In the case of flat roofs from the average level of the front road and continuance to the highest point of the building. ii) In case of pitched roofs up to the point where the external surface of the outer wall intersects the finished surface of the sloping roof and iii) In the case of gables facing the road midpoint between the eaves level and the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of measuring heights. The height of the building shall be taken up to the terrace level for the purpose of fire safety requirement[20] (Ministry of Housing and Urban Affairs, 2016).

2.1.5.7.6 Floor Area Ratio

The quotient obtained by dividing the combined covered area (plinth area) of all floors, excepting areas specifically exempted under these regulations, by the total area of the plot, viz.:

$$FAR = \frac{\text{Total covered area on all floors}}{\text{Plot Area}}$$

2.1.5.8 Surrounding Area Details

This means details of the surrounding area of the building such as open spaces, vertical openings, fire stop etc.

2.1.5.9 Structure Category

The construction of the building based on type of materials, design which are important factors in making building resistant to a complete burn out and in preventing the rapid spread of fire, smoke or fumes which may contribute to the loss of lives and property.

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[20] Ministry of Housing and Urban Affairs. (2016). Model Building Bye-Laws. Ministry of Housing and Urban Affairs. From https://mohua.gov.in/upload/uploadfiles/files/Chap-7.pdf

2.1.5.10 Construction Stage

This means current stage of construction of a building during which the Fire NOC is applied, such as pre-establishment, construction or post construction.

2.1.5.10.1 Pre-Establishment

The pre-construction phase includes creating a strategic plan for the project, creating a design, securing permits or entitlements, and gathering the labor and resources required for construction. The builder may apply for Fire NOC at this stage by submitting layout designs and plans.

2.1.5.10.2 During Construction

The during construction phase is where the physical construction is ongoing. The builder may apply for Fire NOC at this stage by submitting layout designs and plans.

2.1.5.10.3 Post Construction

The post-construction phase is where the physical construction is completed. The builder may apply for Fire NOC at this stage.

2.1.5.11 W&S Consumer ID

Water & Sewerage (W&S) Consumer ID is a unique connection identifier for water & sewerage connection of the building for which Fire NOC is applied. A Fire NOC ID should be linked with W&S consumer ID to fetch relevant water connection details from municipal W&S registry and vice versa. This linking may also be used to identify revenue leakages.

2.1.5.12 Electricity Consumer ID

Electricity Consumer ID is a unique connection identifier for electricity connection of a building. A Fire NOC ID should be linked with electricity consumer ID to fetch relevant details from municipal electricity registry and vice versa. This linking may also be used to identify revenue leakages.

2.1.6 Renewal Details

These are details associated with the previous Fire NOC. The renewal of the NOC has to be done within a specific time frame a per the ULB. Renewal details may include:

- Old Fire NOC ID
- Property tax receipt
- Old Application ID
- Professional on record details

2.1.7   Fire Zone

The city or area under the jurisdiction of the authority shall for the purpose of Fire and Life Safety Code, be demarcated into the distinct zones, based on fire hazard inherent in the buildings and structures according to occupancy which shall be called as fire zones[21] (National Building Code Sectional Committee, CED 46, 2016). The number of fire zones in a city or area under the jurisdiction of the authority depends upon the existing layout, types of building construction, classification of existing building based on occupancy and expected future development of the city or area. In larger cities, three fire zones may be necessary, while in smaller ones, one or two may be adequate.

2.1.8   ULB Type

Type of Urban Local Body as per the definition of MoHUA such as Nagar Panchayat, Municipal Council or Municipal Corporation[22] (Ministry of Housing and Urban Affairs, 2014).

2.1.9   Evidence

Proof of the building and owner details submitted during application of Fire NOC. These can be;

- Address proof of the building
- ID proof of the applicant
- Aadhaar card
- Layout plans of the building
- License details of professional on record

2.1.10   Penal provisions

These are the penalties for violation or non-compliance of terms, provisions, rules, and regulations that are required to be followed by the registered entity. Some of the penalties for contravention of the provisions of the Fire NOC are stated below:

- If an entity violates the condition of certificate or cause nuisance in the neighborhood or surrounding, then the certificate might be cancelled or revoked;
- The entity committing a breach of the terms of the certificate or applicable laws shall make it liable to pay prescribed penalty;
- A fine of 50% of the NOC fees may be levied in case of any delay in the certificate renewal process.

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[21] National Building Code Sectional Committee, CED 46. (2016). National Building Code of India, Part 4 Fire & Life Safety. Bureau of Indian Standards.
[22] Ministry of Housing and Urban Affairs. (2014). Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines. Ministry of Housing and Urban Affairs.

- An appropriate legal action can also be taken against the defaulting entity.

2.1.11 Fire NOC Type

Fire NOC Type means type of NOC based on the period of validity such as permanent Fire NOC, usually valid for the financial year, and provisional Fire NOC usually valid for shorter period of time.

2.1.11 Type of Fire NOC

2.1.11.1 Temporary Fire NOC   2.1.11.2 Permanent Fire NOC
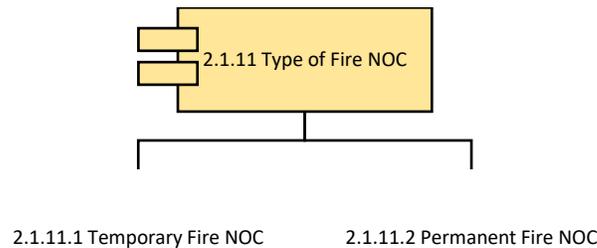
FIGURE 3 TAXONOMY OF TYPE OF FIRE NOC

2.1.11.1   Temporary Fire NOC

A temporary Fire NOC or provisional Fire NOC is the NOC applied for the validity of short period i.e., less than a financial year.

2.1.11.2   Permanent Fire NOC

A Permanent Fire NOC is the NOC applied for the validity of the financial year that can be renewed as per the Fire NOC guidelines.

2.1.12 Validity

Validity is the time period through which a Fire NOC is valid.

2.1.13 Certificate Status

This is the current status of validity of Fire NOC.

2.1.13 Certificate Status

2.1.13.1 Valid   2.1.13.2 Lapsed   2.1.13.3 Suspended   2.1.13.4 Cancelled
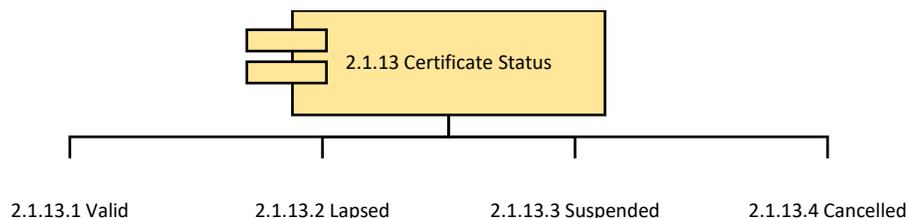
FIGURE 4 TAXONOMY OF CERTIFICATE STATUS

2.1.13.1   Valid

This is the status of Fire NOC when its within validity.

2.1.13.2   Lapsed

This is the status of Fire NOC when its beyond validity.

2.1.13.3   Suspended

This is the status of Fire NOC when its beyond validity if certificate issued is suspended for a reason by the ULB.

2.1.13.4   Cancelled

This is the status of Fire NOC when its beyond validity if certificate issued is cancelled for a reason by the ULB.

2.1.14   Application Status

This is the current status of Fire NOC application.
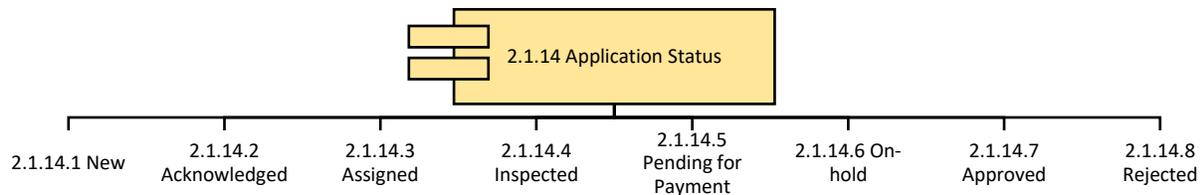
FIGURE 5 TAXONOMY OF APPLICATION STATUS

2.1.14.1   New

New application status means that a Fire NOC application has been filed.

2.1.14.2   Acknowledged

Acknowledged application status means that the Fire NOC application has been acknowledged by the ULB department.

2.1.14.3   Assigned

Assigned application status means that the Fire NOC application is assigned to inspection team and the inspection is in process.

2.1.14.4   Inspected

Inspected application status means that the Fire NOC inspection is completed.

2.1.14.5   Pending for Payment

Pending for Payment application status means that that the Fire NOC application is pending for payment after successful inspection.

2.1.14.6   On-hold

On-hold application status means that the Fire NOC application is put on hold for a reason.

2.1.14.7   Approved

Approved application status means that the Fire NOC application is approved. A Fire NOC ID is generated in this case.

2.1.14.8   Rejected

Rejected application status means that the Fire NOC application is rejected after inspection.

2.1.15   Fire NOC Request Type

Request type is the classification of application is applied based on the nature of application.
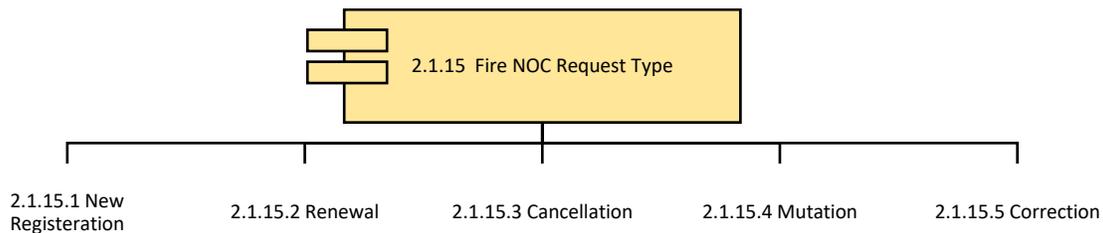
FIGURE 6 TAXONOMY OF FIRE NOC REQUEST TYPE

2.1.15.1   New Registration

New registration means an application for registration for fresh Fire NOC is to be submitted with requisite documents and registration & processing fee along with applicable Fire NOC fee.

2.1.15.2   Renewal

Renewal means the application to renew the Fire NOC for any kind of Fire NOC category. The renewal of the Fire NOC has to be done within a specific time frame a per the municipal authority.

2.1.15.3 Cancellation

Cancellation means an application type to cancel existing Fire NOC. The ULB officer, after receiving the application with required information, if not satisfied about its correctness will remove such establishment from the register of establishments and cancel the Fire NOC.

2.1.15.4 Mutation

Mutation means an application type for transfer of title to existing Fire NOC.

2.1.15.5 Correction

Correction means an application type for correction of building-related information of an existing Fire NOC.

2.1.16 Assessment Year

Assessment year is the year for which assessment was done for an obtained Fire NOC.

2.1.17 Billing Details

These are the details of bill generated during the process of application for a new NOC or while renewing an old NOC.
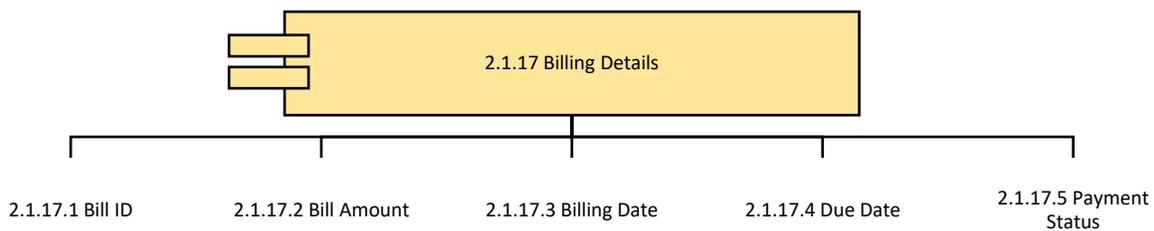
FIGURE 7 TAXONOMY OF BILLING DETAILS

2.1.17.1 Bill ID

Bill ID is a unique identifier that identifies applicant's bill for accounting purposes.

2.1.17.2 Bill Amount

An amount of money paid by the applicant during the application of the Fire NOC.

2.1.17.3　Billing Date

Billing date is the date on which bill is generated during the application process.

2.1.17.4　Due Date

Due date is the date on which the bill for a particular application (application fees or the bill for a particular NOC is due for the current assessment duration) is due for the new application. Upon non-payment of bill by the given due date, a surcharge may be levied on the initial demand by the imposition of a penalty.

2.1.17.5　Payment Status

Payment status is the status of payment against raised bill.

2.1.18　Payment Details

These are the details of payment made during the process of application for a new NOC or while renewing an old NOC.
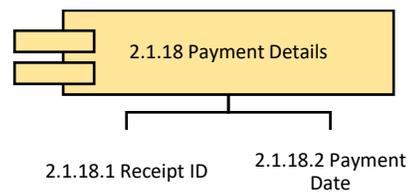
FIGURE 8 TAXONOMY OF PAYMENT DETAILS

2.1.18.1　Receipt ID

Receipt ID is a unique identifier which is generated once payment is completed and payment details are captured on accounting system.

2.1.18.2　Payment Date

The date on which the Fire NOC fees (application or NOC) is paid by the applicant.

2.1.19　Fire NOC Checklist

Fire NOC checklist is a list of items, as names or tasks, for comparison, verification, or other checking purposes. These checklists can be of two types pre construction checklists and post construction checklists.
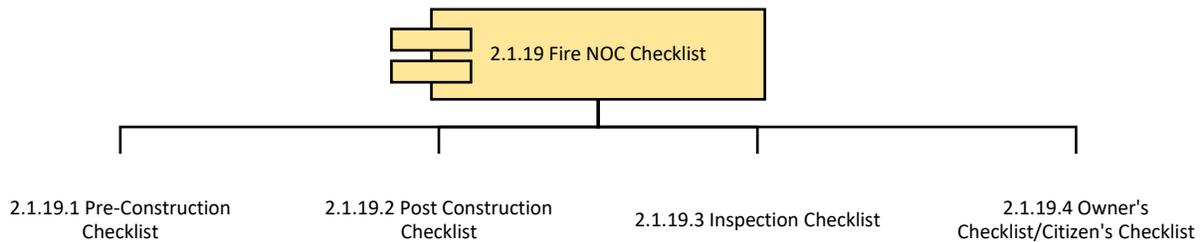
FIGURE 9 TAXONOMY OF FIRE NOC CHECKLIST

2.1.19.1   Pre-construction Checklist

This means a list of items or tasks to compare or verify fire safety regulations at pre-construction stage.

2.1.19.2   Post Construction Checklist

This means a list of items or tasks to compare or verify fire safety regulations at post construction stage.

2.1.19.3   Inspection Checklist

Inspection checklist is used by ULB inspector to check conformance to relevant rules, safety measures and guidelines workforce, labor, any illegal activity, etc.

2.1.19.4   Owner's Checklist/Citizen's Checklist

This means a list of building fire safety related information that needs to be furnished by the owner/applicant during the application of the Fire NOC. The checklist is usually available at the website of ULB or at the ULB office for ready reference of the citizen.

2.1.20   Fire NOC SLG Factors

These are important time factors associated with a NOC application that determine the timeliness aspect of Fire NOC approval with respect to Service Level Guarantee (SLG) set by the ULB or state.

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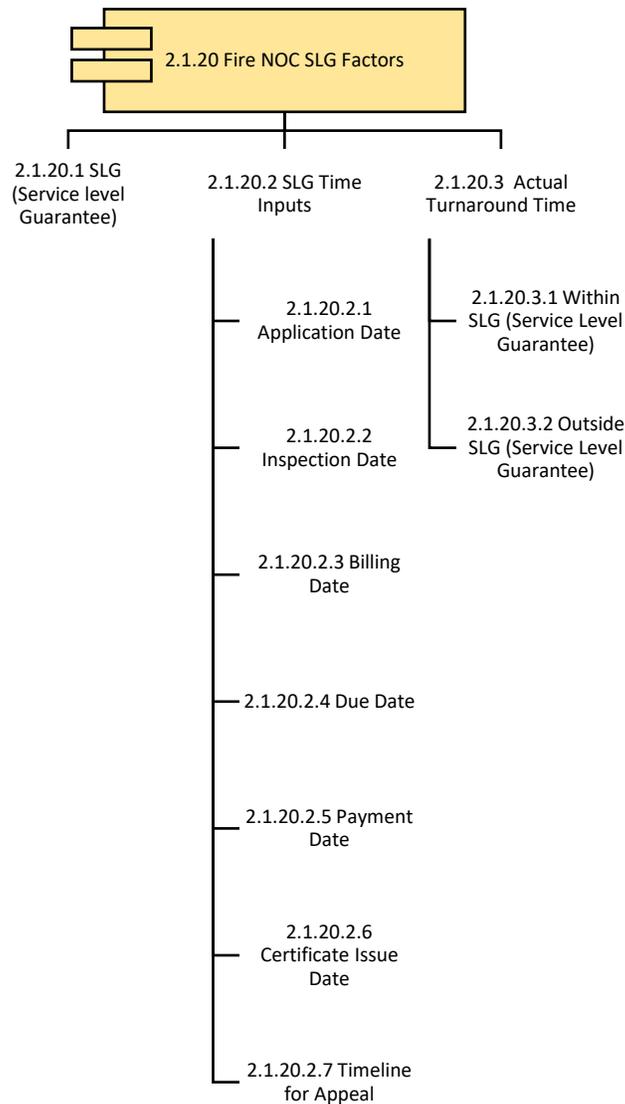
FIGURE 10 TAXONOMY OF FIRE NOC TIME

2.1.20.1   SLG (Service level Guarantee)

The maximum time that service departments expect to take to complete a Fire NOC process. Also called expected compliance time set by the ULB in citizen charter or any public disclosed document for a service in which it should be issued or managed. Public sharing of a comparative picture of various SLG in the municipal corporation may introduce competition to improve performance.

2.1.20.2   SLG Time Inputs

These are important dates that help capture service level compliances

2.1.20.2.1 Application Date

Application is the date on which the application was first observed by the citizen.

2.1.20.2.2 Inspection Date

It is the date on which an inspection has been conducted by the ULB inspector.

2.1.20.2.3 Billing Date

Refer section 2.1.17.3.

2.1.20.2.4 Due Date

Refer section 2.1.17.4.

2.1.20.2.5 Payment Date

Refer section 2.1.18.2.

2.1.20.2.6 Certificate Issue Date

Certificate issue date is the date on which Fire NOC ID was issued to the applicant by the ULB.

2.1.20.2.7 Timeline for Appeal

This is the timeline mentioned in an assessment notice by when an aggrieved person can appeal to the appellate authority.

2.1.20.3 Actual Turnaround Time

Actual Turnaround Time is the actual time taken by the ULB in which a Fire NOC is issued, cancelled, restored, renewed, or suspended.

2.1.20.3.1 Within SLG (Service level Guarantee)

When a Fire NOC is issued in the given SLG (Service level Guarantee) without exceeding the time period defined.

2.1.20.3.2 Outside SLG (Service level Guarantee)

When a Fire NOC is issued beyond the SLG (Service level Guarantee) exceeding the time period defined.

2.2 Fire NOC Channels

Channel / Mode / Method through which Fire NOC application is being registered by the citizen or information and response is shared by the ULBs.
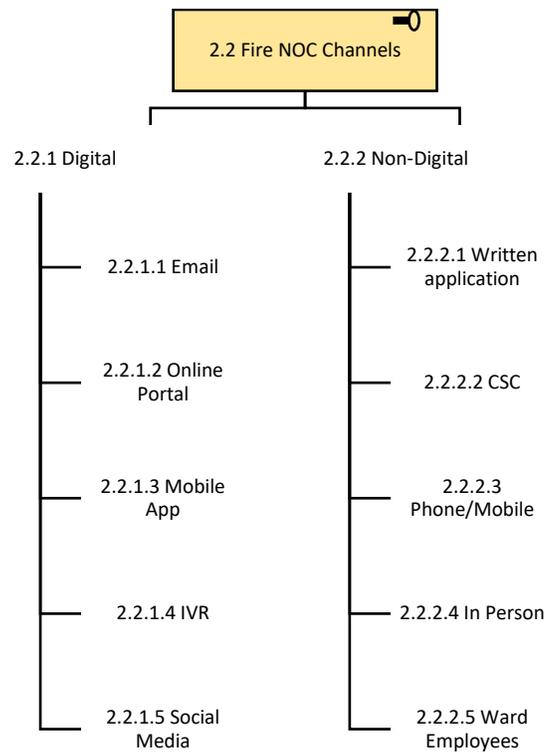
FIGURE 11 TAXONOMY OF FIRE NOC CHANNELS

2.2.1 Digital

Digital means an electronic way to collect, store, process and transmit data in the desired form. In the context of Fire NOC, this refers to processes and corresponding data used by the authority and the individual for Fire NOC which is requested or generated in digital form for the purpose of recording, allocation, assessment, follow up, and appeal.

2.2.1.1 Email

Electronic media for transfer of messages and information through internet.

2.2.1.2 Online Portal

Web portals or web application refers to the websites developed for Fire NOC management. This broadly includes an assessment calculator, Fire NOC data, owner's information and facility to pay

the Fire NOC fees through payment gateways linked to the portals. These portals also include a Fire NOC system.

2.2.1.3 Mobile App

A mobile application, also referred to as a mobile app or simply an app, is a computer program or software application designed to run on a mobile device such as a phone, tablet, or watch.

2.2.1.4 IVR

Interactive Voice Response (IVR) is a technology that allows humans to interact with a computer-operated phone system through the use of voice and DTMF tones input via a keypad. The call center operator will listen to the IVR recorded Fire NOC and register the same in the system. He/She/They may contact the citizen in case information provided is insufficient or any clarification required.

2.2.1.5 Social Media

Social media are interactive technologies that allow the creation or sharing/exchange of information, ideas, interests, and other forms of expression via virtual communities and networks such as twitter, WhatsApp, Facebook etc.

2.2.2   Non-Digital

These are other means (non-digital) by which a request for Fire NOC is captured.

2.2.2.1 Written application

A written application refers to a channel for Fire NOC which includes a letter in a prescribed format, addressing to Municipal Commissioner, requesting for new or renewal of Fire NOC.

2.2.2.2 CSC

A Common Service Center (CSC) is an information and communication technology (ICT) access point created under the National e-Governance Project of the Indian government.

2.2.2.3 Phone/Mobile

Mobile telephone, also called mobile, is a portable device for connecting to a telecommunications network in order to transmit and receive voice, video, or other data.

2.2.2.4 In Person

A person/s can walk in to the municipal office/ ward office to submit their Fire NOC application.

2.2.2.5 Ward Employees

Ward employees are the employees of municipal council or municipal authority, concerned with administrative wards of the city. In terms of Fire NOC an application can be submitted through the respective ward employees where the Fire NOC is established.

2.3   Fire NOC Stakeholders

Fire NOC stakeholders are the stakeholders involved in planning, implementation and maintenance of Fire NOC function. Participation by all relevant stakeholders ensures sharing a common understanding and involvement in the decision-making process as well as accountability in urban governance. Participation by all stakeholders leads to empowerment and to joint ownership and harmonized access to information connecting multiple urban departments to serve citizens better.
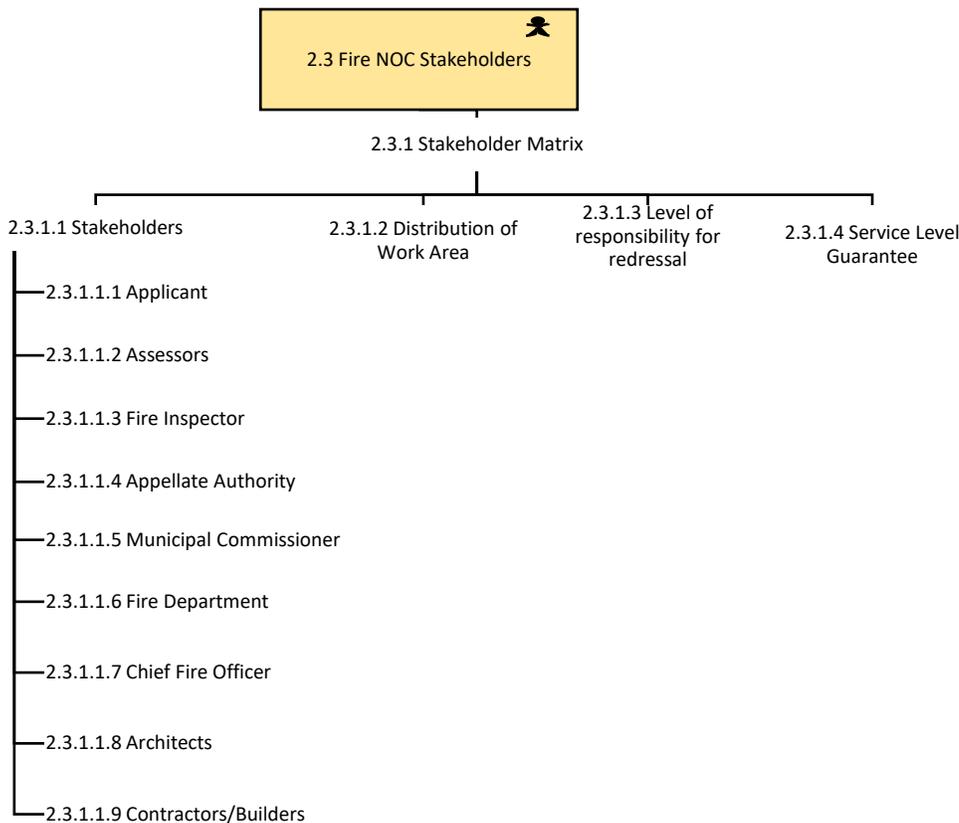
FIGURE 12 TAXONOMY OF FIRE NOC STAKEHOLDERS

2.3.1 Stakeholder Matrix

Stakeholder matrix captures distribution of work area, level of responsibility and Service Level Guarantee of various stakeholders within the ULB and/ or contracted organizations based on ward / locality/jurisdiction, service / issue category.

2.3.1.1 Stakeholders

This refers to the types of stakeholders who are involved in a Fire NOC system such as the citizen, assessor, inspectors, appellate authority and Municipal Commissioner.

2.3.1.1.1 Applicant

Applicant means the originator of the Fire NOC application who requests the service.

2.3.1.1.2 Assessors

An assessor is a ULB official who determines the value of a Fire NOC fee for revenue purposes. The figures assessors derive are used to calculate future Fire NOC rate.

2.3.1.1.3 Fire Inspector

A Fire Inspector is a person who has been appointed by a government department or agency to perform Fire NOC compliance and enforcement duties.

2.3.1.1.4 Appellate Authority

Appellate Authority is the authority or representative of the authority assigned to review the procedures and decisions or assessment of Fire NOC fee to make sure that the proceedings were fair and that the proper law/regulation are applied appropriately.

2.3.1.1.5 Municipal Commissioner

Commissioner of the ULB or municipal body means an officer appointed by the Government, and includes an Additional Director, a Joint Director, Deputy Director, or any other officer of the Government authorized by it to perform the functions of the Commissioner and Director of Municipal Administration.

2.3.1.1.6 Fire Department

The department of a local or municipal authority in charge of preventing and fighting fires.

2.3.1.1.7 Chief Fire Officer

Chief Fire Officer means the person in charge of a service as contemplated in section 5 of Fire Brigade Services Act of 1987. The Chief Fire Officer shall examine the plans to ensure that they are in accordance with the provisions of fire safety and means of escape as per these bye- laws and shall forward two sets of plans duly have signed for implementation to the building sanctioning authority.

2.3.1.1.8 Architects

Architects means a person whose name is for the time being entered in the register of Council of Architecture[23] (Council of Architecture, 1972). The architects may be responsible to design the building as per Fire and Life Safety Code, byelaws or any other building bye laws by the ULBs. The Architect of the project will be responsible for making provisions for fire protection and firefighting measure and for that she / he may consult an expert in this field, as in case of other professionals for structural, sanitary and others[24] (Ministry of Housing and Urban Affairs, 2016).

2.3.1.1.9 Contractors/Builders

Contractors are any person or organization with whom the ULB has entered into contract in relation with the construction works and/ or O&M requirements.

2.3.1.2 Distribution of Work Area

This refers to the ward and/or sectors within ULB for which each of the stakeholders are responsible for.

2.3.1.3 Level of responsibility for redressal

In order to ensure that applications are resolved within the prescribed time norm, escalation levels of responsibility for redressal are mapped.

2.3.1.4 Service Level Guarantee

Refer section 2.1.20.1.

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[23] Council of Architecture. (1972). Architects Act. Ministry of Education, Government of India. From https://www.coa.gov.in/index1.php?lang=1&level=2&sublinkid=117&lid=130
[24] Ministry of Housing and Urban Affairs. (2016). Model Building Bye-Laws. Ministry of Housing and Urban Affairs. From https://mohua.gov.in/upload/uploadfiles/files/Chap-7.pdf

2.4   Fire NOC Processes

Fire NOC Processes are a series of actions or steps taken in order to achieve a timely delivery of Fire NOCs by the ULBs such as Fire NOC application creation, assessment, suspension, restoration, cancellation, appellate, billing, approval & certification.

2.4 Fire NOC Processes

- 2.4.1 Application Creation
- 2.4.2 Acknowledgement
- 2.4.3 Application Billing & Payment
- 2.4.4 Assessment
- 2.4.5 Appellate
- 2.4.6 NOC Billing & Payment
- 2.4.7 Recovery
- 2.4.8 Write-off
- 2.4.9 Approval & Certification
- 2.4.10 Fire NOC Monitoring
- 2.4.11 Analysis
- 2.4.12 Tax Payer Services
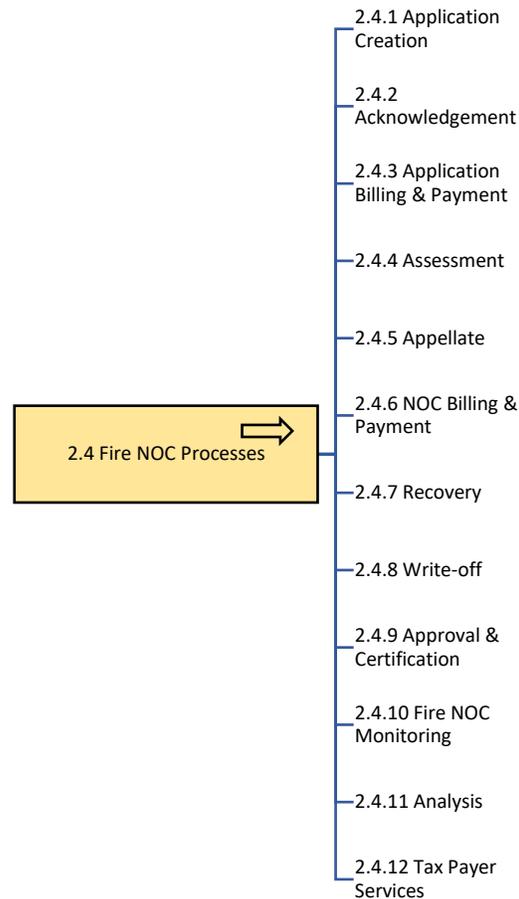
FIGURE 13 TAXONOMY OF FIRE NOC PROCESSES

2.4.1   Application Creation

A process by which an application is created for Fire NOC at the municipal authority such as new Fire NOC, renewal of Fire NOC, or transfer of Fire NOC. Application status in this case is new.

```
                                    ┌── 2.4.1.1 Applicant Details

                                    ├── 2.4.1.2 Building details

                                    ├── 2.4.1.3 Fire NOC Type

                                    ├── 2.4.1.4 Evidence

  ┌─────────────────────────┐⇒      ├── 2.4.1.5 Fire  Zone
  │  2.4.1 Application Creation │────┤
  └─────────────────────────┘       ├── 2.4.1.6 Professional on
                                    │       record details

                                    ├── 2.4.1.7 Penal Provisions

                                    ├── 2.4.1.8 Assessment Year

                                    └── 2.4.1.9 Fire NOC
                                            Request Type
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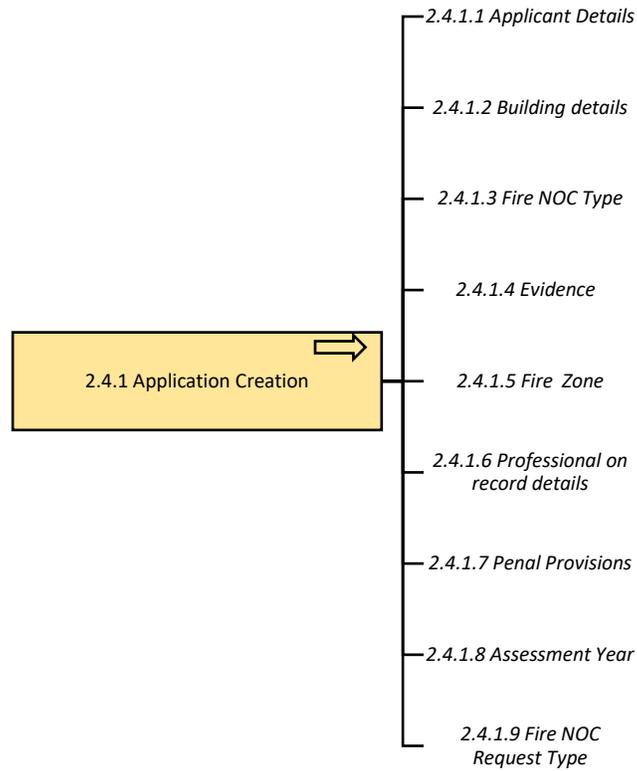
FIGURE 14 TAXONOMY OF APPLICATION CREATION

2.4.1.1 *Applicant Details*

Refer section 2.1.3.

2.4.1.2 *Building details*

Refer section 2.1.5.

2.4.1.3 *Fire NOC Type*

Refer section 2.1.11.

2.4.1.4 *Evidence*

Refer section 2.1.9.

2.4.1.5 *Fire Zone*

Refer section 2.1.7.

2.4.1.6 *Professional on record details*

Refer section 2.1.4.

2.4.1.7 *Penal Provisions*

Refer section 2.1.10.

2.4.1.8 *Assessment Year*

Refer section 2.1.16.

2.4.1.9 *Fire NOC Request Type*

Refer section 2.1.15.

2.4.2 Acknowledgement

The process to acknowledge the new registration/renewal by the ULBs. An acknowledgement slip or receipt is generated post acknowledgement of the application. An application ID is generated in this case. Acknowledgement may be automatic or manual (if the grievance is received through non-digital channel). Application status post acknowledgment is changed to acknowledged.
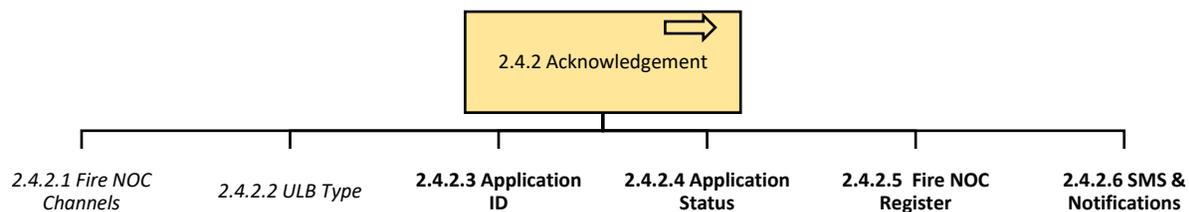
FIGURE 15 TAXONOMY OF ACKNOWLEDGEMENT

2.4.2.1 *Fire NOC Channels*

Refer section 2.2.

2.4.2.2 *ULB Type*

Refer section 2.1.8.

2.4.2.3 Application ID

Refer section [2.1.2](#).

2.4.2.4 Application Status

Refer section [2.1.14](#).

2.4.2.5 Fire NOC Register

Refer section [2.5.1.1](#).

2.4.2.6 SMS & Notifications

These are the notifications sent to citizens informing them about the Fire NOC being registered on system.

2.4.3 Application Billing & Payment

Application Billing & Payment is the process of generating bill (demand) against a new application by the ULB and subsequent payment of the same by the applicant.
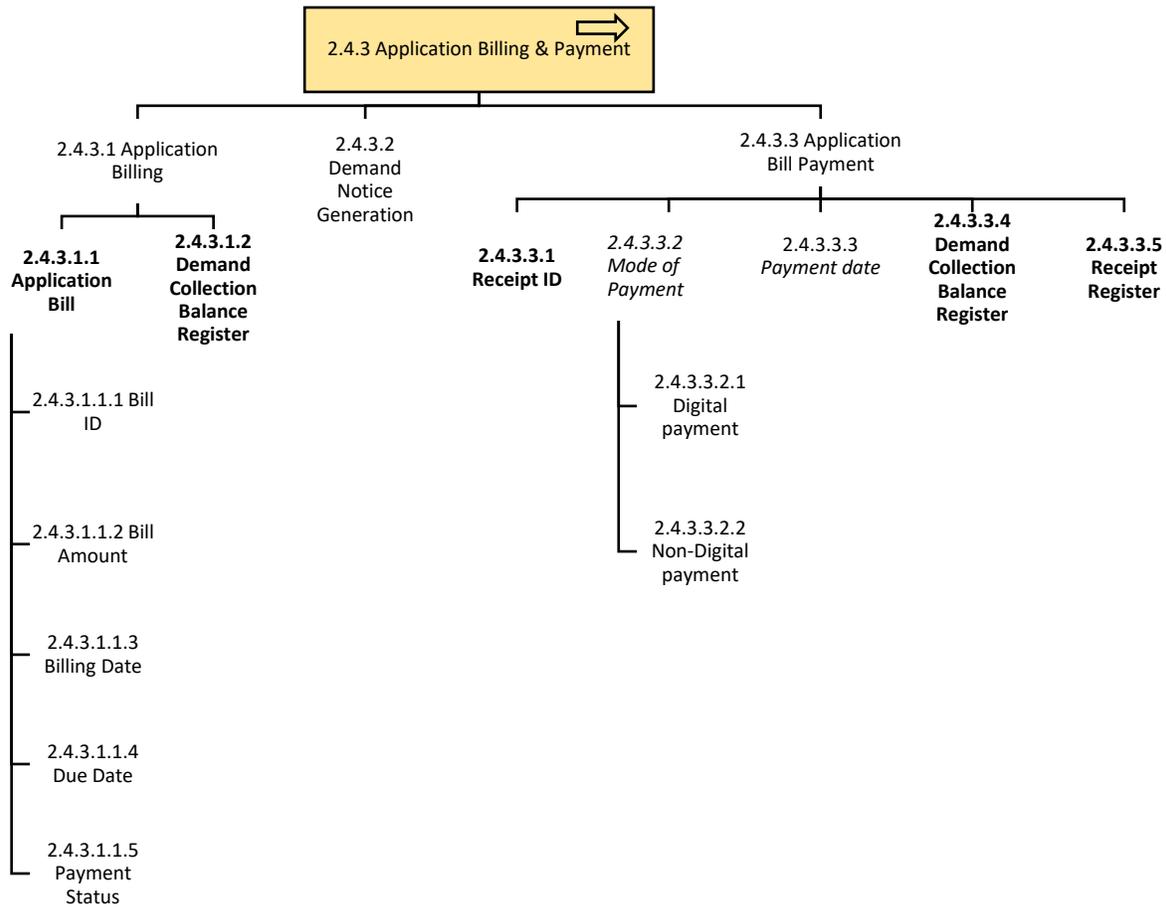
FIGURE 16 TAXONOMY OF APPLICATION BILLING & PAYMENT

2.4.3.1 Application Billing

The process by which an application bill is generated during the process of a new application.

2.4.3.1.1 Application Bill

It is the initial bill generated for the application/inspection fee for the applied NOC. Inspection bill constitutes of application processing fee and inspection fee amount.

2.4.3.1.1.1   Bill ID

Refer section 2.1.17.1.

2.4.3.1.1.2   Bill Amount

Refer section 2.1.17.2.

The fee and application processing fee is included in this overall fee calculation. ULB may ask for inspection fees to be based on number of times inspection is done.

2.4.3.1.1.3 Billing Date

Refer section 2.1.17.3.

2.4.3.1.1.4 Due Date

Refer section 2.1.17.4.

2.4.3.1.1.5 Payment status

Refer section 2.1.17.5.

2.4.3.1.2 Demand Collection Balance Register

Refer section 2.5.1.4.

2.4.3.2 Demand Notice Generation

This is the process in which bill (demand) is generated and served to the applicant.

2.4.3.3 Application Bill Payment

Payment is the voluntary tender of money or its equivalent or of things of value by citizen against the bill generated.

2.4.3.3.1 Receipt ID

Refer section 2.1.18.1.

2.4.3.3.2 *Mode of Payment*

It means mode of payment of bill amount by the applicant.

2.4.3.3.2.1 Digital payment

A digital payment occurs when the payment for processing the application and NOC fees could be done via digital and electronic medium, such as using debit card, credit card, payment gateway etc.

2.4.3.3.2.2 Non-Digital payment

Non-digital payment refers to the mode of payment of money in physical form like cash, demand draft, cheque etc.

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2.4.3.3.3 *Payment date*

Refer section 2.1.18.2.

2.4.3.3.4 Demand Collection Balance Register

Refer section 2.5.1.4.

2.4.3.3.5 Receipt Register

Refer section 2.5.1.5.

2.4.4   Assessment

The process by which the documents were scrutinized by the fire department with the support of other related departments. The assessment is conducted online or offline by the fire officer assigned based on the location/area. Application status in this case is assigned
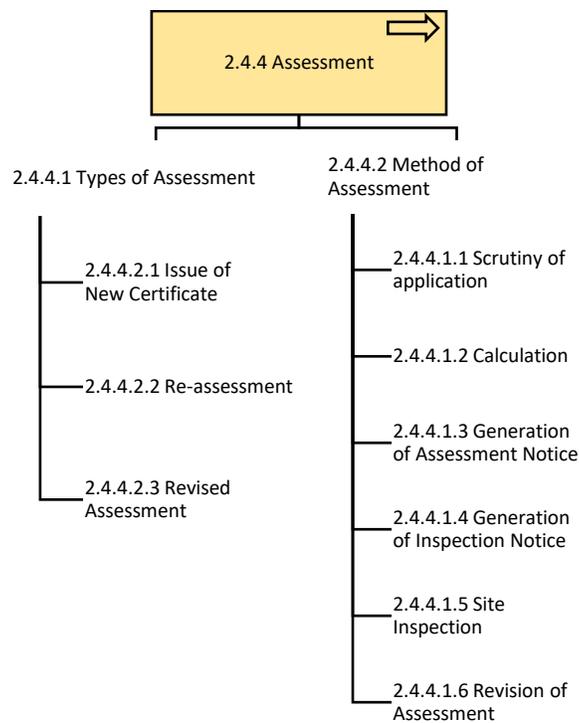
FIGURE 17 TAXONOMY OF ASSESSMENT

2.4.4.1 Types of Assessment

Types of assessment is the classification of assessment processes undertaken to provide Fire NOC service.
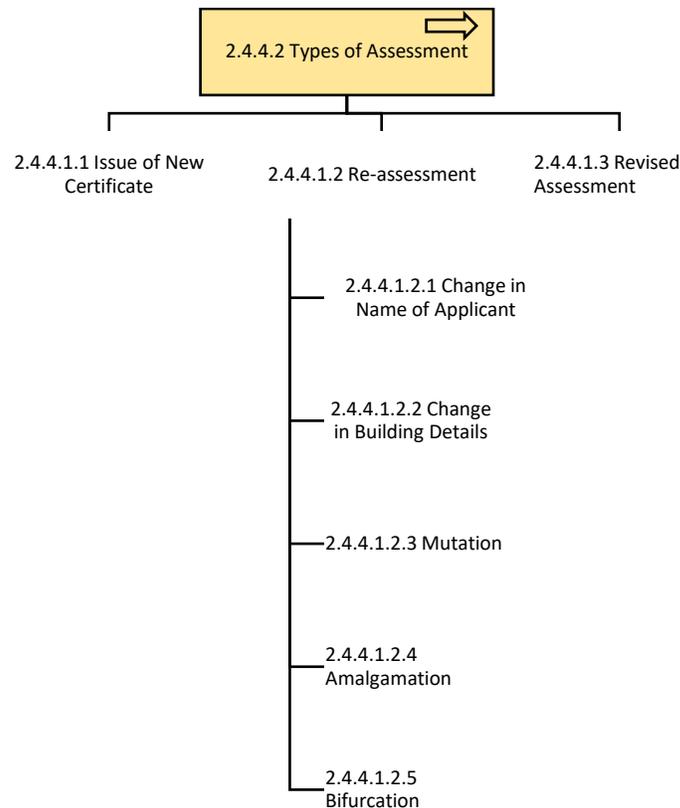
FIGURE 18 TAXONOMY OF TYPES OF ASSESSMENT

2.4.4.1.1 Issue of New Certificate

Assessment process undertaken while issuing a certificate for the first time.

2.4.4.1.2 Re-assessment

Assessment process undertaken to determine new fee based on the change in the usage of an existing Fire NOC or change in the building details.

2.4.4.1.2.1   Change in Name of Applicant

Assessment process undertaken during change in name of applicant.

2.4.4.1.2.2   Change in Building Details

Assessment process undertaken during change in type of building which is mentioned in the Fire NOC.

2.4.4.1.2.3   Mutation

Assessment process undertaken during transfer of Fire NOC from one owner to another owner.

2.4.4.1.2.4   Amalgamation

Assessment process undertaken when two or more NOCs are merged into a single NOC with a Single or Joint owner.

2.4.4.1.2.5   Bifurcation

Assessment process undertaken when a NOC is bifurcated into two or more Fire NOCs.

2.4.4.1.3 Revised Assessment

Assessment process undertaken during changing the assessed value for a Fire NOC based on the periodic increase in rates (based on Local acts) or based on noticed changes in the Fire NOC factors. Revised assessment may also take place after appellate decision to change the Fire NOC fees amount.

2.4.4.2 Method of Assessment

This means different methods undertaken to assess the Fire NOC application based on Fire NOC factors.
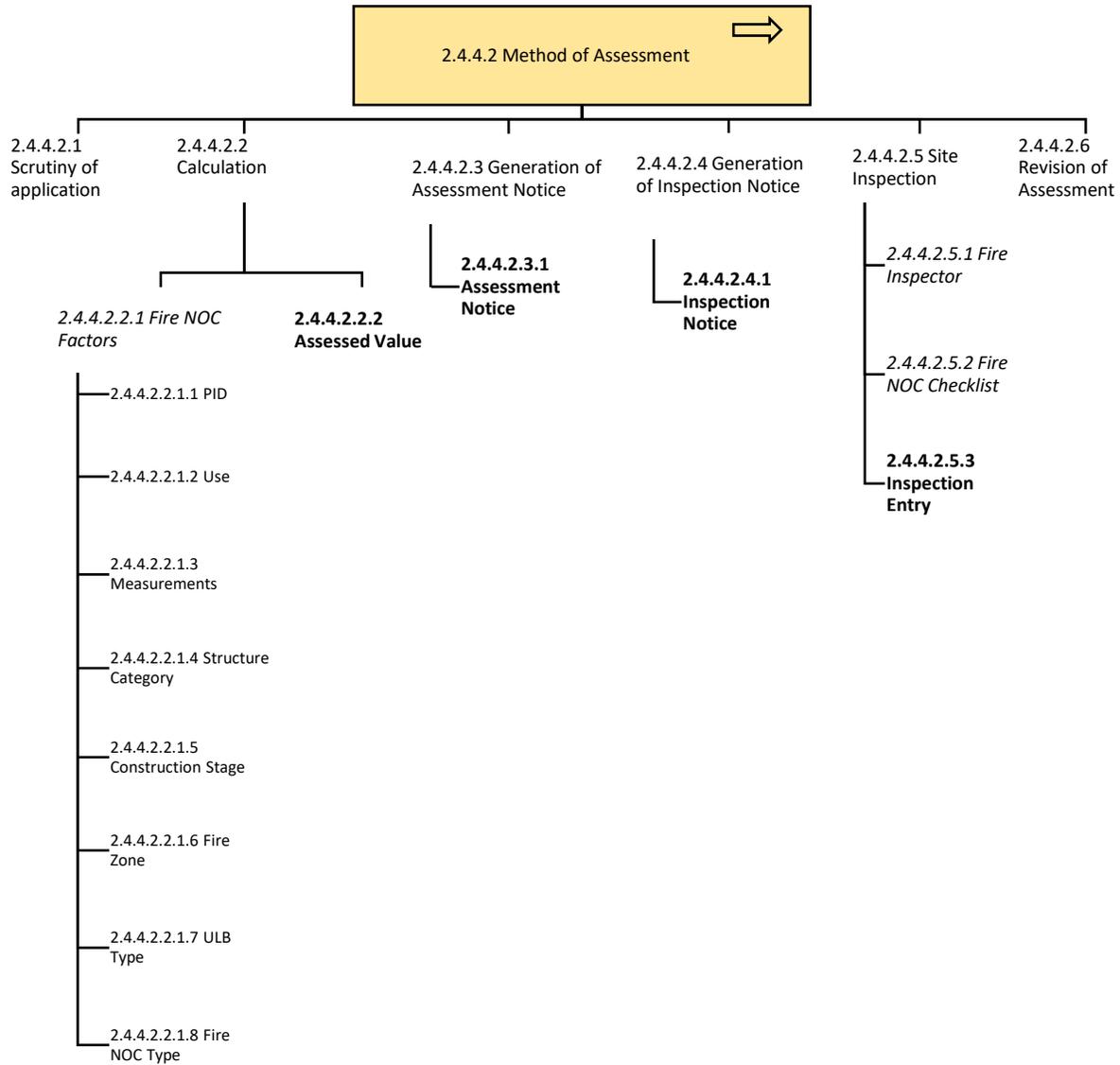
FIGURE 19 TAXONOMY OF METHOD OF ASSESSMENT

2.4.4.2.1 Scrutiny of application

It is the assessment conducted on the application as soon as it's been applied by the citizen by the assessing officer. During the initial assessment scrutiny of documents may be done by the ULB officials and appropriate inspection fees, NOC fees and inspection notice are generated.

2.4.4.2.2 Calculation

Calculation is the process of calculating the fees for applied Fire NOC based on the specified criteria as mention in their Municipal Act or as decided by the Municipal Commissioner. Fire NOC calculation process comprises the use of any one or combination of methods using various attributes of Fire NOC such as Fire NOC type, building details, construction stages, fire zone, Fire NOC request type and any other related amount to calculate Fire NOC bill amount.

2.4.4.2.2.1 Fire NOC Factors

These are the factors associated with a Fire NOC and used in various Fire NOC processes like assessment, calculation of tax and billing.

2.4.4.2.2.1.1 PID

Refer section 2.1.5.1.

2.4.4.2.2.1.2 Use

Refer section 2.1.5.3.

2.4.4.2.2.1.3 Measurements

Refer section 2.1.5.7.

2.4.4.2.2.1.4 Structure Category

Refer section 2.1.5.8.

2.4.4.2.2.1.5 Construction Stage

Refer section 2.1.5.9.

2.4.4.2.2.1.6 Fire Zone

Refer section 2.1.7.

2.4.4.2.2.1.7 ULB Type

Refer section 2.1.8.

2.4.4.2.2.1.8 Fire NOC Type

Refer section 2.1.11.

2.4.4.2.2.2 Assessed Value

For the purpose of Fire NOC fee, a building is assessed over its location, type, height, design, Floor Area Ratio (FAR) etc. This ascertained price is known as assessed value. Assessed value is converted to Fire NOC fee (demand) once inspection is completed and Fire NOC factors are verified. This may include inspection fee value.

2.4.4.2.3 Generation of Assessment Notice

This is the process in which assessment notice is generated and shared with the applicant.

2.4.4.2.3.1 Assessment Notice

Assessment notice is the notice served to the applicant indicating the assessed value of Fire NOC assessed on basis of the Fire NOC factors. This notice is not considered as the final bill. The assessment notice is the interim notice to confirm the fee of the Fire NOC.

2.4.4.2.4 Generation of Inspection Notice

This is the process in which Inspection notice is the notice shared with the applicant.

2.4.4.2.4.1 Inspection Notice

Inspection notice is the notice served to the applicant notifying them about the planned time of inspection-by-inspection officer.

2.4.4.2.5 Site Inspection

It is the ground inspection conducted post initial assessment, an ULB Inspector is assigned to verify the application who inspects the building with respect to conformance to inspection checklist.

2.4.4.2.5.1 *Fire Inspector*

Refer section 2.3.1.1.3

2.4.4.2.5.2 *Fire NOC Checklist*

Refer section 2.1.19.

2.4.4.2.5.3 Inspection Entry

It means reporting the details of inspection post ground inspection by the inspector such as inspection time, details, notes etc. Application status in this case is inspected or rejected.

2.4.4.2.6 Revision of Assessment

Revised assessment notice is the notice served to the applicant indicating the revised assessed value of Fire NOC assessed on basis of the actual ground inspection. Thereafter a revised assessment notice is shared with the applicant.

2.4.5 Appellate

Appellate is the process followed after the assessment are presented and the applicant is aggrieved by the fixation or the charging of the Fire NOC fees. The appeal process kicks off with a simple appeal letter or through Fire NOC application.

FIGURE 20 TAXONOMY OF APPELLATE
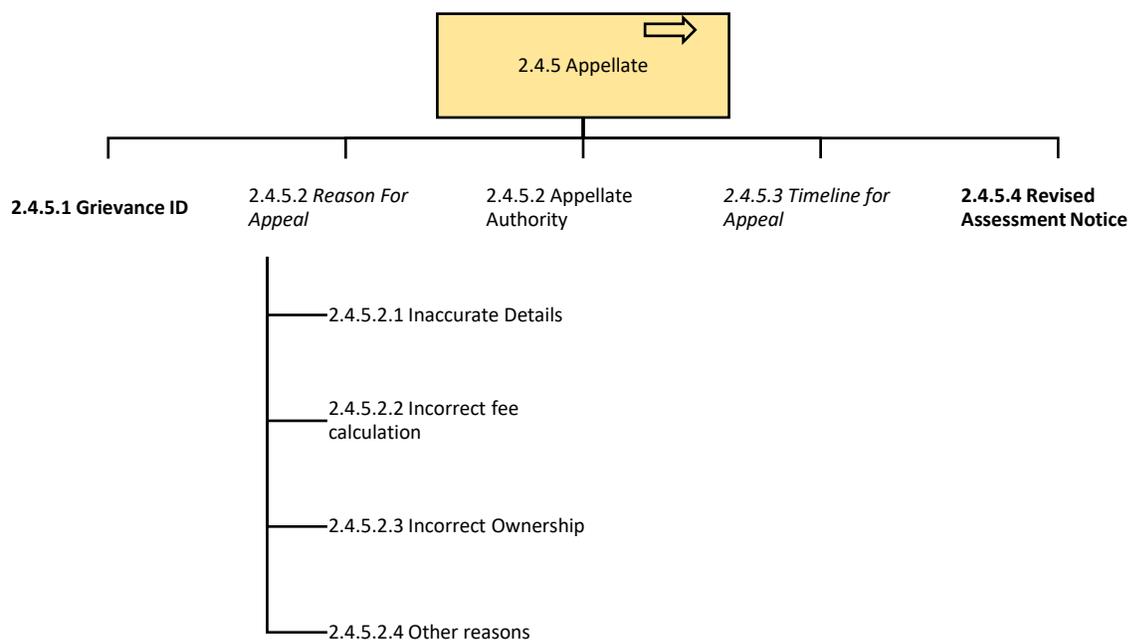
2.4.5.1 Grievance ID

Grievance ID is a unique identifier allotted to the grievance by the ULB for the purpose of grievance recording, allocation, assessment, follow up, and appeal.

2.4.5.2 *Reason For Appeal*

Reason for Appeal is the reason as captured in assessment notice or bill because of which an aggrieved person appeals to the appellate authority for necessary action.

2.4.5.2.1 Inaccurate Details

This means the aggrieved person has appealed given the reason of inaccurate details such as incorrect name, building details, NOC type etc. in an assessment notice.

2.4.5.2.2 Incorrect fee calculation

This means the aggrieved person has appealed given the reason of incorrect fee calculation in an assessment notice.

2.4.5.2.3 Incorrect Ownership

This means the aggrieved person has appealed given the reason of incorrect ownership in an assessment notice.

2.4.5.2.4 Other reasons

This means the aggrieved person has appealed given the any other reason as per the assessment notice.

2.4.5.3 Appellate Authority

Refer section 2.3.1.1.4

2.4.5.4 *Timeline for Appeal*

Refer section 2.1.20.2.7.

2.4.5.5 Revised Assessment Notice

Revised assessment notice is the notice served to the applicant indicating the revised assessed value of Fire NOC assessed on basis of the revised assessment.

2.4.6   NOC Billing & Payment

NOC Billing & payment is the process of generating bill (demand) against the calculated and approved Fire NOC fee by the ULB and subsequent payment of the same by the applicant.

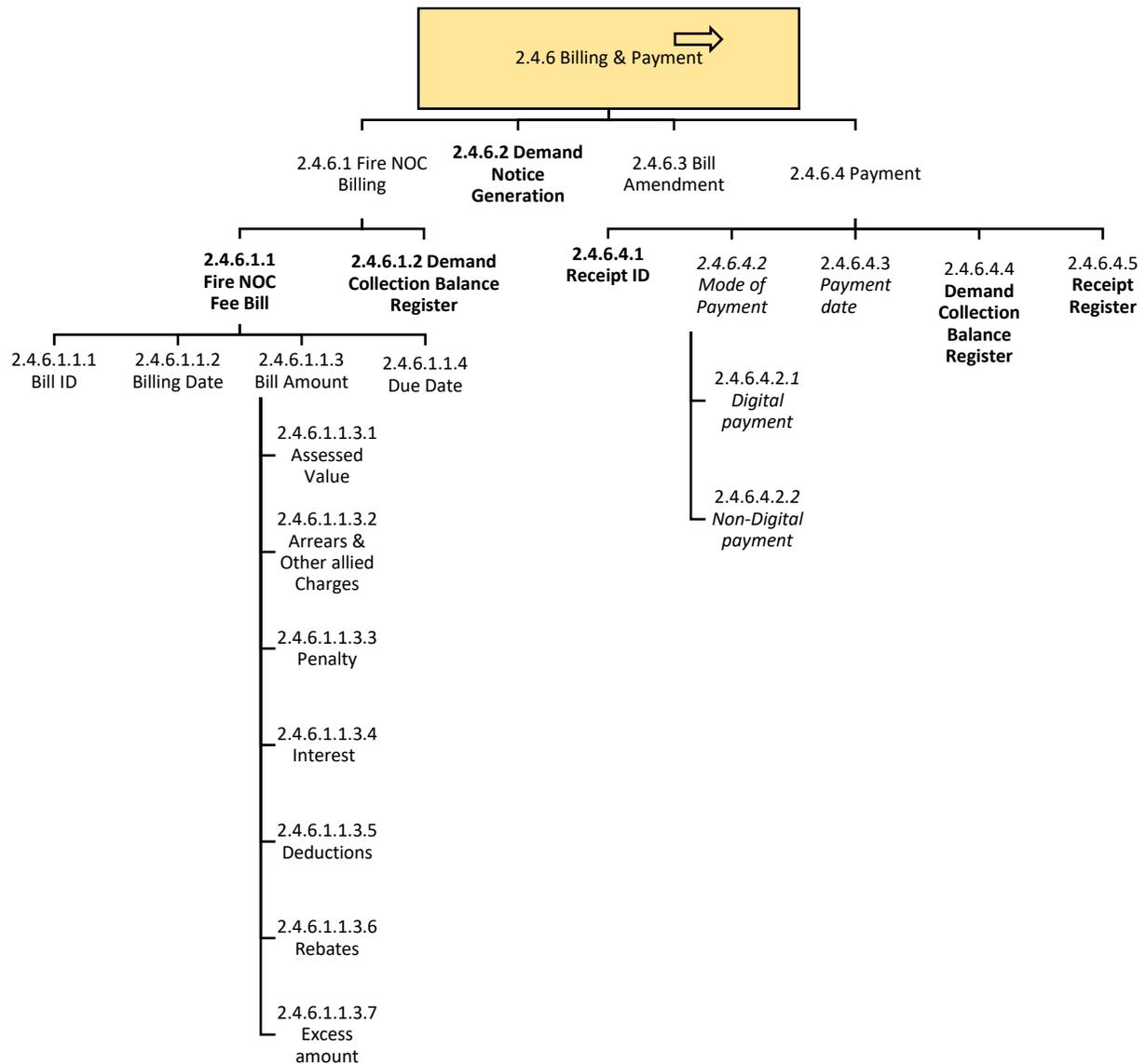*FIGURE 21 TAXONOMY OF BILLING & PAYMENT*

2.4.6.1 Fire NOC Billing

The process by which a Fire NOC fee bill is generated based on Fire NOC factors post assessment and verification of the application. Application status in this case is pending for payment.

2.4.6.1.1 Fire NOC Fee Bill

It means the final bill generated in reference to Fire NOC application based on assessed value for the certificate.

2.4.6.1.1.1　Bill ID

Refer section 2.1.17.1.

2.4.6.1.1.2　Bill Amount

Refer section 2.1.17.2.

2.4.6.1.1.3　Billing Date

Refer section 2.1.17.3.

2.4.6.1.1.3.1　Assessed Value

Refer section 2.4.4.2.2.2.

2.4.6.1.1.3.2　Arrears & Other allied Charges

Arrears are defined as previous year's and/or unpaid bill amount or Fire NOC fees.

2.4.6.1.1.3.3　Penalty

The amount of extra money the citizen has to pay for failing to adhere to Fire NOC rules and/or/laws, timelines.

2.4.6.1.1.3.4　Interest

The amount collected above Fire NOC bill in the event of late payment. It is usually determined at a particular rate of Fire NOC.

2.4.6.1.1.3.5　Deductions

Deductions is the component of Fire NOC fee which has been deducted from the gross fee in lieu of advance or any other exemptions made subject to the rules of assessment of Fire NOC application.

2.4.6.1.1.3.6　Rebates

Discount given to the citizen for paying Fire NOC bill in advance or before end of the statutory period or for undertaking certain listed activities as per the applicable rules.

2.4.6.1.1.3.7　Excess amount

This means any other amount that may be added in the bill as per assessment, rule or law.

2.4.6.1.1.4   Due Date

Refer section 2.1.17.4.

2.4.6.1.2 Demand Collection Balance Register

Refer section 2.5.1.4

2.4.6.2 Demand Notice Generation

This is the process in which bill (demand) is generated and served to the applicant.

2.4.6.3 Bill Amendment

Bill amendment is the process of amending Fire NOC bill when applicant notices a discrepancy in the calculation of the bill and submits a request for amendment or when the ULB realizes discrepancy in the calculation of bill and amends it.

2.4.6.4 Payment

Payment is the voluntary tender of money or its equivalent or of things of value by applicant against the bill generated.

2.4.6.4.1 Receipt ID

Refer section 2.1.18.1.

2.4.6.4.2 *Mode of Payment*

Refer section 2.4.3.2.2

2.4.6.4.2.1   Digital Payment

Refer section 2.4.3.2.2.1

2.4.6.4.2.2   Non-Digital payment

Refer section 2.4.3.2.2.2

2.4.6.4.3 *Payment date*

Refer section 2.1.18.2.

2.4.6.4.4 Demand Collection Balance Register

Refer section 2.5.1.4.

2.4.6.4.5 Receipt Register

Refer section 2.5.1.5.

2.4.7   Recovery

Recovery means, recovery of fees from the applicant or defaulters. In some cases, recovery may be in terms of impounding any movable or immovable asset of the defaulter. Few methods of recovery in Fire NOC are:

- by presenting a bill
- by serving a written notice of demand
- by a suit
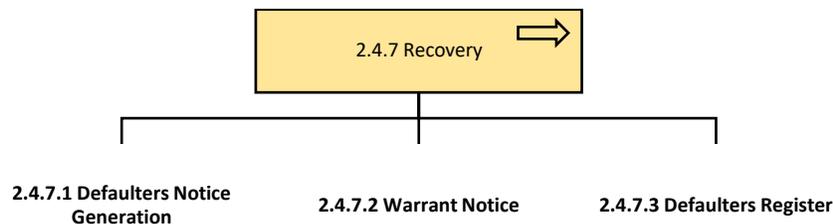
FIGURE 22 TAXONOMY OF RECOVERY

2.4.7.1 Defaulters Notice Generation

This means generation and service of notice to the defaulters who have not paid the Fire NOC bill by the due date. In these cases, bills are amended to include penalties or late fee for defaulting.

2.4.7.2 List of Defaulters

Refer section 2.5.1.2.

2.4.7.3 Warrant Notice

Warrant notice is the bill that is served by the authority on the service seeker for recovery.

2.4.8   Write-off

Write-Off of Fire NOC fee is the process of deductions or exemptions of fee, in compliance with any law, or through the guidelines of the ULB or the court of law.

2.4.9 Approval & Certification

The process of approving the applied application for Fire NOC post assessment and inspection and issues Fire NOC by the municipal commissioner of the ULBs. Application status in this case is approved.

FIGURE 23 TAXONOMY OF APPROVAL & CERTIFICATION

2.4.9.1 Fire NOC ID

Refer section 2.1.1.

2.4.9.2 No Objection Certificate Issuance

This means issuing No Objection Certificate post assessment and approval of Fire NOC application.

2.4.9.3 *Certificate Issue Date*

Refer section 2.1.20.2.6.

2.4.9.4 Fire NOC Register

Refer section 2.5.1.1.

2.4.9.5 SMS & Notifications

Refer section 2.4.2.6.

2.4.10   Fire NOC Monitoring

Fire NOC monitoring is the monitoring process undertaken by the ULB officials from the time a Fire NOC application is lodged on system until it's approved and remains valid. The NOCs and associated revenue are monitored based on purpose of Fire NOC, Service Level Benchmarks, building type, regulation purpose and need for renewal.

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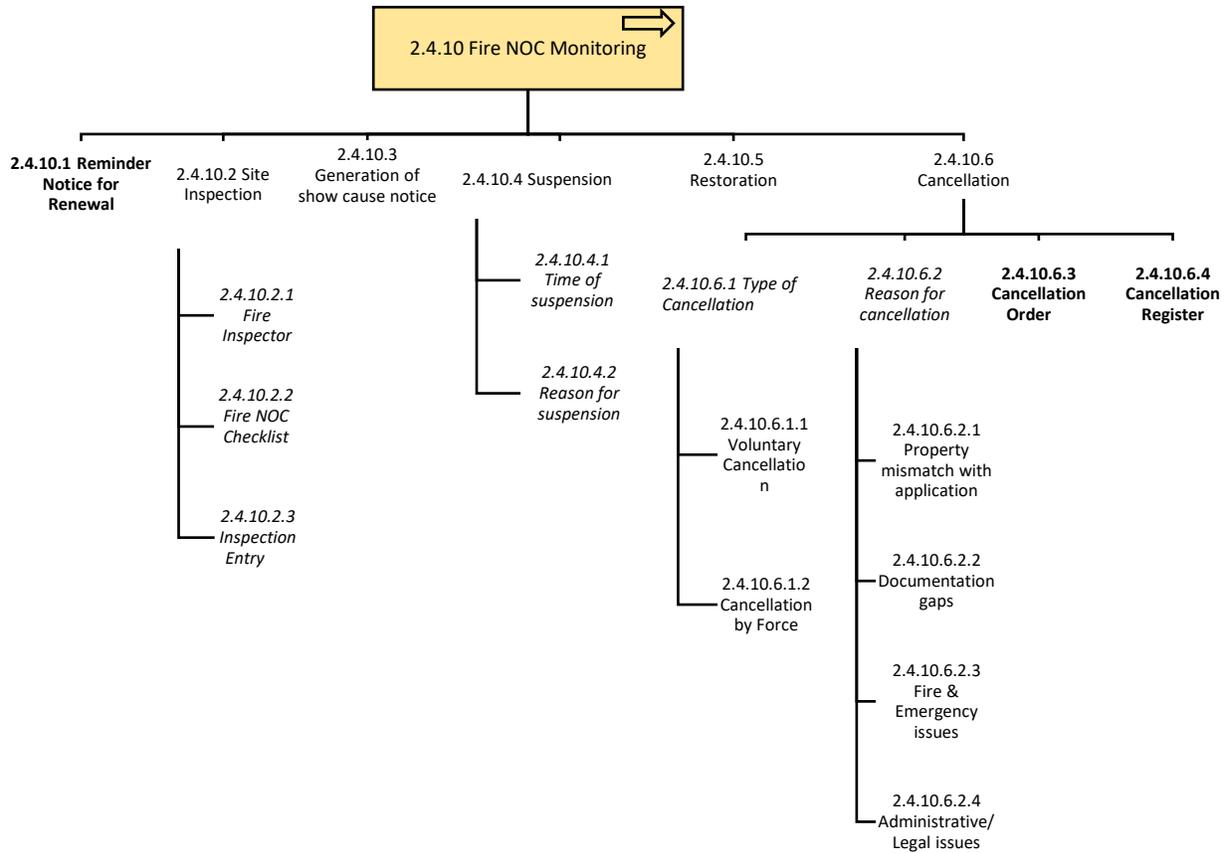National Institute of Urban Affairs

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FIGURE 24 TAXONOMY OF FIRE NOC MONITORING

2.4.10.1   Reminder Notice for Renewal

The process of issuing a notice for renewal by the ULBs to the applicant for renewal of expired certificate. The notice may be issued via SMS, Email, or by sending physical letter to the owner of the NOC.

2.4.10.2　　Site Inspection

Site Inspection is the process by the ULB officials to check that the building is carrying out safety measures and guidelines. This form of inspection may occur whenever the ULB find suitable. Show Cause Notice can be issued to the applicant if they violate the rules or if a complaint is raised against them.

2.4.10.2.1　*Fire Inspector*

Refer section 2.3.1.1.3

2.4.10.2.2　*Fire NOC Checklist*

Refer section 2.1.19

2.4.10.2.3　*Inspection Entry*

Refer section 2.4.4.2.5.3.

2.4.10.3　　Generation of show cause notice

The process of issuing the show cause notice to owners. It is given to the offender for his actions by asking him to defend the charges made against him/her by explanations. By serving this notice an opportunity is given to the offender for his/her actions by asking them to defend the charges made against him by explanations and reasons by writing and as well as personal hearing. If the offender clears himself that whatever he has done is right then the charges/ actions will be dropped against him. Certificated of owners who fail to clear charges is suspended.

2.4.10.4　　Suspension

The process by which a valid Fire NOC is suspended by the ULB by giving a reason for suspension.

2.4.10.4.1　*Time of suspension*

This means recording of the time at which the certificate has been suspended by the ULB.

2.4.10.4.2　*Reason for suspension*

This means recording the reason for which the certificate has been suspended by the ULB.

2.4.10.5　　Restoration

The process by which the applicant may restore a previously expired NOC.

2.4.10.6 Cancellation

The process of cancelling the certificate for the owners. The cancellation of NOC is issued when there is no satisfactory response received from the owner for which show cause notice was issued.

2.4.10.6.1 *Type of Cancellation*

Type of cancellation captures classification of Fire NOC cancellation such as voluntary cancellation or cancellation by force.

2.4.10.6.1.1 Voluntary Cancellation

This means cancellation of application by the applicant.

2.4.10.6.1.2 Cancellation by Force

This means cancellation of application or NOC by force by giving reason for cancellation such as safety issues, legal issues, documentation gaps or any other reason.

2.4.10.6.2 *Reason for cancellation*

ULBs may cancel the application by providing relevant reasons, if applicant didn't respond to show cause notice on time.

2.4.10.6.2.1 Property mismatch with application

ULB may cancel the application if the property use mentioned in application didn't match during site inspection.

2.4.10.6.2.2 Documentation gaps

ULB may cancel the application if there are any documentation gaps in the application submitted post show cause notice.

2.4.10.6.2.3 Fire & Emergency issues

ULB may cancel the application if the assessing officer or inspection officer reported any fire & emergency issue.

2.4.10.6.2.4 Administrative/Legal issues

ULB may cancel the application if there are any administrative/legal issues.

2.4.10.6.3 Cancellation Order

A cancellation order is generated post cancellation of the application or Fire NOC.

2.4.10.6.4   Cancellation Register

Refer section 2.5.1.6.

2.4.11   Analysis

Fire NOC analysis is the process through which all Fire NOC applications are analyzed to check quality of service and become aware of (and eventually rectify) any deficiency in services. This helps in improving the efficiency, accountability, responsiveness and transparency of a ULB, ultimately leading to improvement in service delivery.
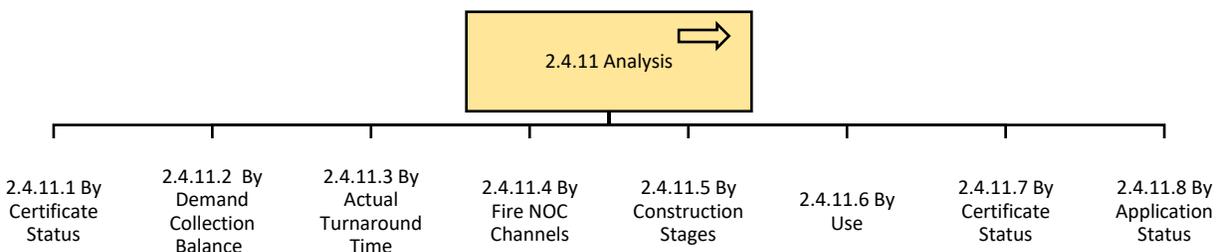

FIGURE 25 TAXONOMY OF ANALYSIS

2.4.11.1   By Certificate Status

Refer section 2.1.13

2.4.11.2   By Demand Collection Balance

Refer section 2.5.1.4

2.4.11.3   By Actual Turnaround Time

Refer section 2.1.20.3.

2.4.11.4   By Fire NOC Channels

Refer section 2.2

2.4.11.5   By Construction Stages

Refer section 2.1.5.9

2.4.11.6   By Use

Refer section 2.1.5.3.

2.4.11.7   By Certificate Status

Refer section 2.1.13.

2.4.11.8   By Application Status

Refer section 2.1.14.

2.4.12   Tax Payer Services

These are the services availed to all tax payers in a municipality. In the context of Fire NOC these are no due certificate, duplicate bills, occupancy certificates and duplicate certificates.

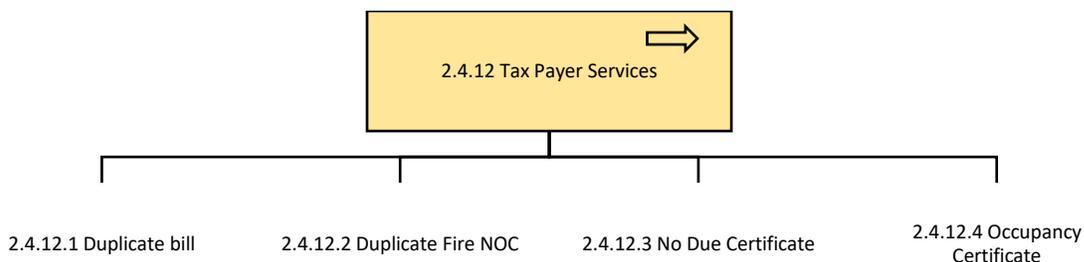*FIGURE 26 TAXONOMY OF TAX PAYER SERVICES*

2.4.12.1   Duplicate bill

These are duplicate copies of bill that an applicant can ask for.

2.4.12.2   Duplicate Fire NOC

These are duplicate copies of certificate that an applicant can ask for.

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2.4.12.3   No Due Certificate

No Dues Certificate (NDCs) is a certification provided to the citizen by the ULB confirming and testifying that the asset / property held by he/she is free from any encumbrances.

2.4.12.4   Occupancy Certificate

A certificate of occupancy is a document issued by a ULB or building department certifying a building's compliance with applicable building codes and other laws, and indicating it to be in a condition suitable for occupancy.

2.5   Fire NOC Reports & KPIs

Fire NOC Reports and KPIs are document that presents information in an organized format for various stakeholders especially in the form of an official document, after thorough investigation or consideration by an appointed person or body at the ULB.
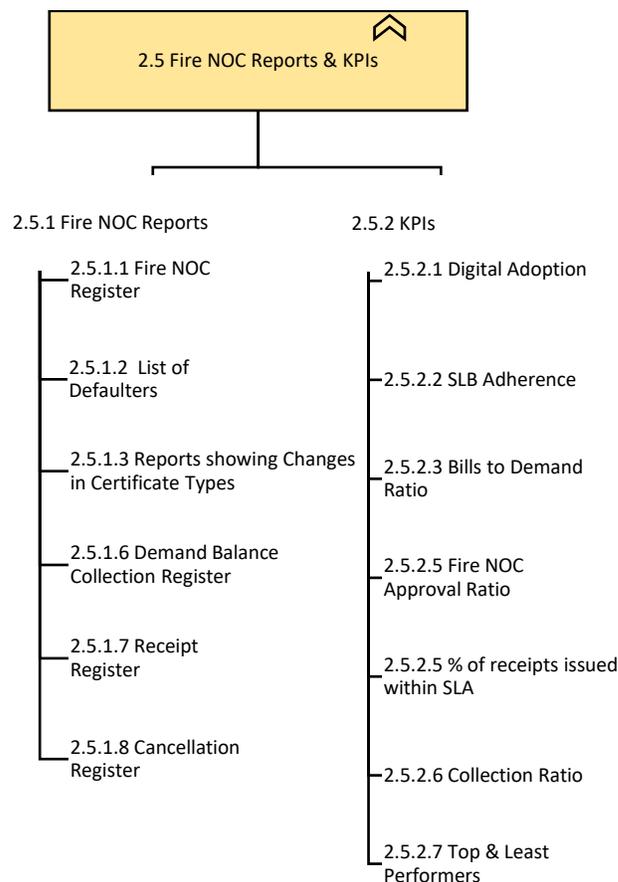

FIGURE 27 TAXONOMY OF REPORTS & KPIS

2.5.1 Fire NOC Reports

The Fire NOC Reports notifies the ULBs about the complete information of all Fire NOCs which are raised through various governance channels. These reports should be maintained by the ULBs.

2.5.1.1 Fire NOC Register

Fire NOC register provides the information about the total number of Fire NOC that are registered to their respective ULBs. The NOCs issued is categorized based on the applicant's name and occupant name and this report gives the clear idea about the details like number of certificates, number of new certificates, number of certificates renewed, number of pending certificates for renewal, inspection details and amount collected.

2.5.1.2 List of Defaulters

List of Defaulters or Defaulter register provide details of Fire NOC defaulters, as on date. Defaulter is a person or body that has not paid last or previous Fire NOC bills. This covers assessment number, owner details, building details, demand year and arrears.

2.5.1.3 Reports showing Changes in Certificate Types

Reports showing changes in NOC types as based on change in Fire NOC requests, date of requests, status of requests etc.

2.5.1.4 Demand Collection Balance Register

This report provides details about Demand, Collection, Balance and Collection Percentage details.

2.5.1.5 Receipt Register

This report provides details about the payment made and receipt issued after the payment of fees.

2.5.1.6 Cancellation Register

Cancellation register report provides the information about the total number of Fire NOC that are cancelled in a given interval. This report gives the clear idea about the details like building details, and applicant details, zone/ ward/ SI Ward, current owner and status about the Fire NOC.

2.5.2 KPIs

This refers to KPIs that should be captured for Fire NOC management.

2.5.2.1 Digital Adoption

Digital Adoption means attaining a state where an individual is capable enough to utilize an application, software, or tools to its fullest capacity or the potential to carry out a variety of digital processes. Digital adoption of Fire NOC can be measured in the following terms:

- % of citizens using digital channels for Fire NOC payment
- % of citizens using digital channels for accessing services
- % volume from different channels
- % of NOCs allocated within SLB

2.5.2.2 SLB Adherence

SLB Adherence means the number of applications processed by the ULB within SLB as determined by the rule or the law.

2.5.2.3 Bills to Demand Ratio

This means comparing the number of generated bills with respect to number of demands generated for the applied Fire NOC requests to account collections by the Fire NOC fees.

2.5.2.4 Fire NOC Approval Ratio

This means the number of total Fire NOCs issued in comparison to total number of applications received for Fire NOCs in an area.

2.5.2.5 Percentage of receipts issued within SLB

This means percentage of receipts issued within the agreed SLB parameters (time, priority, others as needed).

2.5.2.6 Collection Ratio

This means percentage of collections as per billing period, time and area.

2.5.2.7 Top and Least Performers

Top and Least Performers list provides information about the zones/wards who have highest and least collection ratios as well as bills to demand ratio in the ULB.

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