

---

# **regulations Documentation**

***Release***

**Author**

**Sep 01, 2017**



---

## Contents

---

<b>1</b>	<b>Django Architecture</b>	<b>3</b>
1.1	Generator . . . . .	3
1.2	Views . . . . .	4
1.3	Layers . . . . .	4
<b>2</b>	<b>regulations package</b>	<b>7</b>
2.1	Subpackages . . . . .	7
2.1.1	regulations.generator package . . . . .	7
2.1.1.1	Subpackages . . . . .	7
2.1.1.2	Submodules . . . . .	13
2.1.1.3	regulations.generator.api_reader module . . . . .	13
2.1.1.4	regulations.generator.generator module . . . . .	13
2.1.1.5	regulations.generator.html_builder module . . . . .	13
2.1.1.6	regulations.generator.label module . . . . .	13
2.1.1.7	regulations.generator.link_flattener module . . . . .	13
2.1.1.8	regulations.generator.node_types module . . . . .	13
2.1.1.9	regulations.generator.notices module . . . . .	13
2.1.1.10	regulations.generator.section_url module . . . . .	13
2.1.1.11	regulations.generator.subterp module . . . . .	13
2.1.1.12	regulations.generator.title_parsing module . . . . .	13
2.1.1.13	regulations.generator.toc module . . . . .	14
2.1.1.14	regulations.generator.versions module . . . . .	14
2.1.1.15	Module contents . . . . .	14
2.1.2	regulations.management package . . . . .	14
2.1.2.1	Subpackages . . . . .	14
2.1.2.2	Module contents . . . . .	15
2.1.3	regulations.migrations package . . . . .	15
2.1.3.1	Submodules . . . . .	15
2.1.3.2	regulations.migrations.0001_initial module . . . . .	15
2.1.3.3	regulations.migrations.0002_remove_failedcommentsubmission_files module . . . . .	15
2.1.3.4	regulations.migrations.0003_delete_failedcommentsubmission module . . . . .	15
2.1.3.5	Module contents . . . . .	15
2.1.4	regulations.settings package . . . . .	15
2.1.4.1	Submodules . . . . .	15
2.1.4.2	regulations.settings.base module . . . . .	15
2.1.4.3	regulations.settings.dev module . . . . .	15

2.1.4.4	regulations.settings.production module . . . . .	15
2.1.4.5	Module contents . . . . .	15
2.1.5	regulations.templatetags package . . . . .	15
2.1.5.1	Submodules . . . . .	15
2.1.5.2	regulations.templatetags.dash_to_underscore module . . . . .	15
2.1.5.3	regulations.templatetags.macros module . . . . .	15
2.1.5.4	regulations.templatetags.render_nested module . . . . .	15
2.1.5.5	regulations.templatetags.to_list module . . . . .	15
2.1.5.6	regulations.templatetags.underscore_to_dash module . . . . .	15
2.1.5.7	Module contents . . . . .	15
2.1.6	regulations.tests package . . . . .	15
2.1.6.1	Submodules . . . . .	15
2.1.6.2	regulations.tests.api_reader_tests module . . . . .	15
2.1.6.3	regulations.tests.apps_tests module . . . . .	15
2.1.6.4	regulations.tests.base_template_test module . . . . .	15
2.1.6.5	regulations.tests.diff_applier_tests module . . . . .	15
2.1.6.6	regulations.tests.generator_section_url_tests module . . . . .	16
2.1.6.7	regulations.tests.generator_subterp_tests module . . . . .	16
2.1.6.8	regulations.tests.generator_tests module . . . . .	16
2.1.6.9	regulations.tests.generator_toc_tests module . . . . .	16
2.1.6.10	regulations.tests.generator_versions_tests module . . . . .	16
2.1.6.11	regulations.tests.html_builder_test module . . . . .	16
2.1.6.12	regulations.tests.label_tests module . . . . .	16
2.1.6.13	regulations.tests.layers_appliers_test module . . . . .	16
2.1.6.14	regulations.tests.layers_definitions_tests module . . . . .	17
2.1.6.15	regulations.tests.layers_footnotes_tests module . . . . .	17
2.1.6.16	regulations.tests.layers_formatting_tests module . . . . .	17
2.1.6.17	regulations.tests.layers_internal_citation_tests module . . . . .	17
2.1.6.18	regulations.tests.layers_interpretations_tests module . . . . .	17
2.1.6.19	regulations.tests.layers_location_replace_tests module . . . . .	17
2.1.6.20	regulations.tests.layers_paragraph_markers_tests module . . . . .	17
2.1.6.21	regulations.tests.layers_toc_applier_tests module . . . . .	17
2.1.6.22	regulations.tests.layers_utils_tests module . . . . .	17
2.1.6.23	regulations.tests.link_flattener_tests module . . . . .	18
2.1.6.24	regulations.tests.node_types_tests module . . . . .	18
2.1.6.25	regulations.tests.notices_tests module . . . . .	18
2.1.6.26	regulations.tests.partial_view_tests module . . . . .	19
2.1.6.27	regulations.tests.sidebar_analyses_tests module . . . . .	19
2.1.6.28	regulations.tests.sidebar_help_tests module . . . . .	19
2.1.6.29	regulations.tests.templatetags_macros_tests module . . . . .	19
2.1.6.30	regulations.tests.title_parsing_tests module . . . . .	19
2.1.6.31	regulations.tests.tree_builder_tests module . . . . .	19
2.1.6.32	regulations.tests.url_cache_tests module . . . . .	21
2.1.6.33	regulations.tests.urls_test module . . . . .	21
2.1.6.34	regulations.tests.views_breakaway_tests module . . . . .	21
2.1.6.35	regulations.tests.views_chrome_tests module . . . . .	21
2.1.6.36	regulations.tests.views_diff_tests module . . . . .	21
2.1.6.37	regulations.tests.views_error_tests module . . . . .	21
2.1.6.38	regulations.tests.views_landing_tests module . . . . .	21
2.1.6.39	regulations.tests.views_navigation_tests module . . . . .	21
2.1.6.40	regulations.tests.views_partial_definitions_tests module . . . . .	21
2.1.6.41	regulations.tests.views_partial_interp_tests module . . . . .	21
2.1.6.42	regulations.tests.views_partial_search_tests module . . . . .	21
2.1.6.43	regulations.tests.views_preamble_tests module . . . . .	21

2.1.6.44	regulations.tests.views_redirect_tests module . . . . .	21
2.1.6.45	regulations.tests.views_sidebar_tests module . . . . .	21
2.1.6.46	regulations.tests.views_sxs_tests module . . . . .	21
2.1.6.47	regulations.tests.views_universal_tests module . . . . .	21
2.1.6.48	regulations.tests.views_utils_test module . . . . .	21
2.1.6.49	Module contents . . . . .	21
2.1.7	regulations.uittests package . . . . .	21
2.1.7.1	Submodules . . . . .	21
2.1.7.2	regulations.uittests.base_test module . . . . .	21
2.1.7.3	regulations.uittests.comment_test module . . . . .	21
2.1.7.4	regulations.uittests.definition_test module . . . . .	21
2.1.7.5	regulations.uittests.diff_test module . . . . .	21
2.1.7.6	regulations.uittests.interp_test module . . . . .	21
2.1.7.7	regulations.uittests.navigation_test module . . . . .	21
2.1.7.8	regulations.uittests.scroll_test module . . . . .	21
2.1.7.9	regulations.uittests.subheader_test module . . . . .	21
2.1.7.10	regulations.uittests.toc_test module . . . . .	21
2.1.7.11	regulations.uittests.utils module . . . . .	21
2.1.7.12	Module contents . . . . .	23
2.1.8	regulations.views package . . . . .	23
2.1.8.1	Submodules . . . . .	23
2.1.8.2	regulations.views.about module . . . . .	23
2.1.8.3	regulations.views.chrome module . . . . .	23
2.1.8.4	regulations.views.chrome_breakaway module . . . . .	23
2.1.8.5	regulations.views.diff module . . . . .	23
2.1.8.6	regulations.views.error_handling module . . . . .	23
2.1.8.7	regulations.views.navigation module . . . . .	23
2.1.8.8	regulations.views.notice_home module . . . . .	23
2.1.8.9	regulations.views.partial module . . . . .	23
2.1.8.10	regulations.views.partial_interp module . . . . .	23
2.1.8.11	regulations.views.partial_search module . . . . .	23
2.1.8.12	regulations.views.partial_sxs module . . . . .	23
2.1.8.13	regulations.views.preamble module . . . . .	23
2.1.8.14	regulations.views.redirect module . . . . .	23
2.1.8.15	regulations.views.reg_landing module . . . . .	23
2.1.8.16	regulations.views.sidebar module . . . . .	23
2.1.8.17	regulations.views.universal_landing module . . . . .	23
2.1.8.18	regulations.views.utils module . . . . .	23
2.1.8.19	Module contents . . . . .	23
2.2	Submodules . . . . .	23
2.3	regulations.all_urls module . . . . .	23
2.4	regulations.apps module . . . . .	23
2.5	regulations.context module . . . . .	23
2.6	regulations.url_caches module . . . . .	23
2.7	regulations.urls module . . . . .	23
2.8	Module contents . . . . .	23
<b>3</b>	<b>Indices and tables</b>	<b>25</b>
<b>Python Module Index</b>		<b>27</b>



Contents:



# CHAPTER 1

---

## Django Architecture

---

Traditional Django apps contain models to store and retrieve data from a database, templates with which to convert these models into HTML, and thin views to connect the two. Generally, each request loads some subset of the models and shoves them through a template.

Regulations-site differs in some fundamental ways. It is model-less, at least in the Django sense; it loads data from an external API and represents the results as a `dict` (as opposed to converting them into objects). Rather than use a single template per request, the templating layer is used frequently and recursively; single requests may often trigger *dozens* (in some cases, *hundreds*) of templates to be processed. As a result, caching is critical to the application; we buffer AJAX calls in the browser, rendered templates, template file lookup, and API results.

Here, we'll dive into several of these components to get a sense of their general workings as well as history and context which led to their creation. We'll highlight the more abnormal bits, shining light on warts.

## Generator

The eRegs UI was originally built as a simple HTML generator, rendering an *entire* regulation. As a result, much of the logic has lived in the `generator` module, which has largely no conception of the HTTP request/response life-cycle. Instead, it is aware of a connection to a backend API, how to associate the types of data served by that API with each other, and how to render the results as HTML.

The `HTMLBuilder` class is king, primarily due to its `process_node()` method, which takes “node” data (i.e. a plain text representation of a regulation, structured as a tree of nested paragraphs) and combines it with “layer” data (i.e. meta/derived data about the tree, such as citations, definitions, etc.) and converts them into HTML. For each node in the tree, layers are applied (see below) in sequence, each successively extending and replacing the node’s “`marked_up`” field with HTML corresponding to the layer’s updates. Each node (still represented as a `dict`) is also given extra attributes which will be used when rendering the Node in templates. To summarize, the `HTMLBuilder` effectively adorns Nodes with new fields, including one representing the Node’s text, as HTML.

Within Django’s views, the resulting Node structure is passed off to a template. This time the tree is walked *within the template*, such that each Node is converted into an appropriate chunk of HTML and concatenated with its siblings. Perhaps confusingly, templates are passed the Node data as a “skeleton” of a full regulation – the single section (or whatever component we care about) is “wrapped” with empty Nodes until it looks like a full regulation. This means

that, from the template perspective, there is largely only *one* entry point for views, regardless of whether that view is generating a section, a single paragraph, or an entire regulation. The practice no doubt stems from the original, full-regulation-generation functionality.

There's a tremendous amount of refactoring that should happen here. We shouldn't be walking the tree twice (once within `HTMLBuilder` and once within the templates) – it'd make more sense to remove the former altogether. Further, a conversion from the `dict` to a class would seem appropriate, to make it obvious where to look for functionality. Though the skeleton concept has merit, the hoops it causes us to jump through are rather strange. Perhaps a better solution would be to select an appropriate template automatically based on its type, position in the tree, etc.

## Views

There are three primary categories for our views: “sidebar”, “partial”, and “chrome”. The first two stem from our AJAX needs; for browsers with the capability, we AJAX load in content as the user clicks around. The “partial” endpoints correspond to the center content of the page (e.g. a regulation section, search results, the diff view, etc.). When a user clicks to load a new section, their browser will make two AJAX requests, one for the center content and one for the sidebar content.

The “chrome” endpoints wrap these two other types of views with navigation, CSS includes, headers, etc. (i.e. the application’s “chrome”). These endpoints are crucial for users without JavaScript (or modern implementations of the URL push API) and for initial loading (e.g. via hard refreshes, bookmarks, etc.).

We currently have far too many *different* views, despite them performing largely the same types of tasks. It would make more sense to combine all of the “node” views into a single class. Similarly, we *mirror* each “partial” view class with a “chrome” class; a more effective strategy would be to have a more generic `wrap_with_chrome` method and no distinct “chrome” classes. This should also remove the incredibly nasty manipulations of Django’s request/response life cycle we’re currently performing to populate the chrome version. Somewhat related, having a separate endpoint for the sidebar and a separate endpoint for partials didn’t turn out as useful as we expected. It probably makes sense to combine them again.

## Layers

We have a handful of layer generating classes, which know how to apply data from a layer API on to regulation text. While many of these classes correspond to a *single* data layer, this is not a hard rule. Indeed, we currently have *two* layer classes associated with the definition data – one handles when terms are *defined* while the other handles when they are *used*. As noted above, layers are applied within the `HTMLBuilder` and live inside the `generator` package. Which layers are used depends on the `DATA_LAYERS` setting. Individual requests can also request a subset of these, though that functionality is rarely used.

Layers fall into three categories:

- “inline”, where the layer defines exact text offsets in the Node’s text. Internal citations (linking to another paragraph or section within the current regulation) are an example. They have data like:

```
{"111-22-c": [{"offsets": [[44, 52], ...], # string index into the text
               # Layer specific fields
               "citation": ["111", "33", "e"]},
               ...],
               ...}
```

- “search-and-replace”, where the layer includes snippets of text (rather than offsets). External citations (linking to content outside of eRegs) are an example. They look like:

```
{
  "111-22-c": [
    {"text": "27 CFR Part 478", "# exact text match"},  

    {"locations": [0, 2, 3], "# skips the second reference"},  

    {"# Layer specific fields"},  

    {"citation_type": "CFR"},  

    {"components": {...}},  

    {"url": "http://example.com/..."},  

    ...],  

  ...
}
```

- “paragraph”, where the layer data is scoped to the full paragraph. The table-of-contents layer is an example here. All fields are specific to the individual layer. For example:

```
{
  "111-Subpart-C": [
    {"title": "Section 111.22 A Title"},  

    {"index": ["111", "22"]},  

    ...],  

  ...
}
```

The first two categories are needed when we want to modify some component of a Node’s text (e.g. a citation, definition, or formatting adjustment). In these scenarios, the generator provides the original text and the layer data to a corresponding template, which is then responsible for returning appropriate HTML. “Search-and-Replace” is the newer model, offering both better legibility of layer data as well as resiliency to minor errors at the cost of concision.

The “paragraph” layer types return a key and value which will be passed through to the template for rendering a full Node. These are largely used for “meta” data, such as the table of contents, section-wide footnotes, and data which would appear in the sidebar.

The main pain point here is the rather strange way that data is provided; the layer data structure points *into* the tree, spelling out specific chunks of text. An XML or similar structured document format would make much more sense. “Paragraph”-type layers could be attributes of the parent element or meta-data tags.



# CHAPTER 2

---

## regulations package

---

### Subpackages

#### regulations.generator package

##### Subpackages

##### regulations.generator.layers package

##### Submodules

##### regulations.generator.layers.base module

**class** regulations.generator.layers.base.**InlineLayer**

Bases: regulations.generator.layers.base.LayerBase

Represents a layer which replaces text by looking at offsets

**apply\_layer** (*text, label\_id*)

Entry point when processing the regulation tree. Given the node's text and its label\_id, yield all replacement text

**attach\_metadata** (*node*)

Noop

**inline\_replacements** (*text\_index, original\_text*)

Apply multiple inline layers to given text (e.g. links, highlighting, etc.)

**replacement\_for** (*original, data*)

Given the original text and the relevant data from a layer, create a (string) replacement, by, for example, running the data through a template

**class** regulations.generator.layers.base.**LayerBase**

Bases: object

---

Base class for most layers; each layer contains information which is added on top of the regulation, such as definitions, internal citations, keyterms, etc.

**attach\_metadata (node)**

Attach metadata to the provided node

**data\_source**

Data is pulled from the API; this field indicates the name of the endpoint to pull data from

**inline\_replacements (text\_index, original\_text)**

Return triplets of (original text, replacement text, offsets)

**shorthand**

A short description for this layer. This is used in query strings and the like to define which layers should be used

**class regulations.generator.layers.base.ParagraphLayer**

Bases: *regulations.generator.layers.base.LayerBase*

Represents a layer which applies meta data to nodes

**inline\_replacements (text\_index, original\_text)**

Noop

**class regulations.generator.layers.base.Replacement (original, replacement, locations)**

Bases: tuple

**locations**

Alias for field number 2

**original**

Alias for field number 0

**replacement**

Alias for field number 1

**class regulations.generator.layers.base.SearchReplaceLayer**

Bases: *regulations.generator.layers.base.LayerBase*

Represents a layer which replaces text by searching for and replacing a specific substring. Also accounts for the string appearing multiple times (via the ‘locations’ field)

**attach\_metadata (node)**

Noop

**inline\_replacements (text\_index, original\_text)**

Entry point when processing the regulation tree. Given the node’s label\_id, attempt to find relevant layer data in self.layer

**replacements\_for (text, data)**

Given the original text and the relevant data from a layer, create a (string) replacement, by, for example, running the data through a template. Returns a generator

**regulations.generator.layers.defined module**

**regulations.generator.layers.definitions module**

**regulations.generator.layers.diff\_applier module**

```
class regulations.generator.layers.diff_applier.DiffApplier(diff_json, label_requested)
```

Bases: object

Diffs between two versions of a regulation are represented in our particular JSON format. This class applies that diff to the older version of the regulation, generating HTML that clearly shows the changes between old and new.

**ADDED\_OP** = ‘added’

**DELETE** = u‘delete’

**DELETED\_OP** = ‘deleted’

**EQUAL** = u‘equal’

**INSERT** = u‘insert’

**MODIFIED\_OP** = ‘modified’

**add\_all** (*text*)

Mark all the text passed in as deleted.

**add\_nodes\_to\_tree** (*original, adds*)

Add all the nodes from *new\_nodes* into the original tree.

**apply\_diff** (*original, label, component='text'*)

Here we delete or add whole nodes in addition to passing to *apply\_diff\_changes* when text has been modified

**apply\_diff\_changes** (*original, diff\_list*)

Account for modified text

**deconstruct\_text** (*original*)

**delete\_all** (*text*)

Mark all the text passed in as deleted.

**delete\_text** (*start, end*)

**get\_text** ()

**classmethod has\_moved** (*label\_op, seen\_count*)

A label is moved if it’s been deleted in one position but added int another

**insert\_text** (*pos, new\_text*)

**is\_child\_of\_requested** (*label*)

Return true if the label is a child of the requested label.

**relevant\_added** (*label*)

Get the operations that add nodes, for the requested section/paragraph.

**remove\_moved\_labels** (*label\_ops*)

If a label has been moved, we will display it in the new position

**set\_child\_labels** (*node*)

As we display removed, added, and unchanged nodes, the children of a node will contain all three types.

Pull the ‘child\_ops’ data to derive the correct order of these combined children

**tree\_changes** (*original\_tree*)

Apply additions to the regulation tree.

## regulations.generator.layers.external\_citation module

### regulations.generator.layers.footnotes module

**class** regulations.generator.layers.footnotes.FootnotesLayer (*layer, version=None*)

Bases: *regulations.generator.layers.base.ParagraphLayer*

Assembles the footnotes for this node, if available

**attach\_metadata** (*node*)

Return a tuple of ‘footnotes’ and collection of footnotes. Footnotes are “collected” from the node and its children. .. note:

This does **not** handle the case where the same note reference **is** used **in** multiple children.

**data\_source** = ‘formatting’

**shorthand** = ‘footnotes’

## regulations.generator.layers.formatting module

## regulations.generator.layers.graphics module

## regulations.generator.layers.internal\_citation module

## regulations.generator.layers.interpretations module

## regulations.generator.layers.key\_terms module

## regulations.generator.layers.layers\_applier module

**class** regulations.generator.layers.layers\_applier.LayersApplier

Bases: object

Most layers replace content. We try to do this intelligently here, so that layers don’t step over each other.

**HTML\_TAG\_REGEX** = <*\_sre.SRE\_Pattern object*>

**apply\_layers** (*original\_text*)

**enqueue** (*layer\_element*)

**enqueue\_from\_list** (*elements\_list*)

**location\_replace** (*xml\_node, original, replacement, locations*)

**replace\_all** (*original, replacement*)

Replace all occurrences of original with replacement. This is HTML aware; it effectively looks at all of the text in between HTML tags

**replace\_at** (*original, replacement, locations*)

Replace the occurrences of original at all the locations with replacement.

**unescape\_text** ()

Because of the way we do replace\_all(), we need to unescape HTML entities.

## regulations.generator.layers.location\_replace module

```
class regulations.generator.layers.location_replace.LocationReplace
Bases: object
```

Applies location based layers to XML nodes. We use XML so that we only take into account the original text when we're doing a replacement.

```
static find_all_offsets(pattern, text, offset=0)
```

Don't use regular expressions as they are a tad slow

```
location_replace(xml_node, original, replacement, locations)
```

For the xml\_node, replace the locations instances of orginal with replacement. @todo: This doesn't appear to be used anymore?

```
location_replace_text(text, original, replacement, locations)
```

Given plain text, do replacements

```
update_offset_starter()
```

As we're navigating the XML node, we need to keep track of how many offsets we've already seen.

```
update_offsets(original, text)
```

Offsets change everytime we replace the text, since we add more characters. Update the offsets.

## regulations.generator.layers.meta module

```
class regulations.generator.layers.meta.MetaLayer(layer_data)
Bases: regulations.generator.layers.base.ParagraphLayer
```

```
attach_metadata(node)
```

Return a pair of field-name (meta) + the layer data

```
data_source = 'meta'
```

```
shorthand = 'meta'
```

## regulations.generator.layers.paragraph\_markers module

### regulations.generator.layers.toc\_applier module

### regulations.generator.layers.tree\_builder module

```
class regulations.generator.layers.tree_builder.AddQueue
Bases: object
```

Maintain a sorted list of nodes to add. This maintains a sorted queue of (label, node) tuples.

```
delete(label)
```

```
find(label)
```

```
insert(item)
```

```
insert_all(items)
```

```
sort()
```

```
regulations.generator.layers.tree_builder.add_child(parent_node, node)
```

Add a child node to a parent, maintaining the order of the children.

```
regulations.generator.layers.tree_builder.add_node_to_tree(node, parent_label,  
tree_hash)
```

Add the node to the tree by adding it to its parent in order.

```
regulations.generator.layers.tree_builder.all_children_are_roman(parent_node)
```

Return true if all the children of the parent node have roman labels

```
regulations.generator.layers.tree_builder.build_label(node)
```

```
regulations.generator.layers.tree_builder.build_tree_hash(tree)
```

Build a hash map of a tree's nodes, so that we don't have to keep walking the tree.

```
regulations.generator.layers.tree_builder.make_label_sortable(label, ro-  
man=False)
```

Make labels sortable, but converting them as appropriate. Also, appendices have labels that look like 30(a), we make those appropriately sortable.

```
regulations.generator.layers.tree_builder.parent_in_tree(parent_label, tree_hash)
```

Return True if the parent of node\_label is in the tree

```
regulations.generator.layers.tree_builder.parent_label(node)
```

This is not perfect. It can not handle children of subparts, for example

```
regulations.generator.layers.tree_builder.roman_nums()
```

Generator for roman numerals.

## **regulations.generator.layers.utils module**

```
regulations.generator.layers.utils.convert_to_python(data)
```

Convert raw data (e.g. from json conversion) into the appropriate Python objects

```
regulations.generator.layers.utils.is_contained_in(child, parent)
```

Return True if child is a child node of the parent.

Node labels are hierarchical paths, with segments separated by ‘-’. As an edge case, a node label is also a child of itself.

```
regulations.generator.layers.utils.render_template(template, context)
```

## **Module contents**

### **regulations.generator.sidebar package**

#### **Submodules**

##### **regulations.generator.sidebar.analyses module**

##### **regulations.generator.sidebar.base module**

##### **regulations.generator.sidebar.diff\_help module**

##### **regulations.generator.sidebar.help module**

## Module contents

### Submodules

[regulations.generator.api\\_reader module](#)

[regulations.generator.generator module](#)

[regulations.generator.html\\_builder module](#)

[regulations.generator.label module](#)

[regulations.generator.link\\_flattener module](#)

`regulations.generator.link_flattener.flatten_links(text)`

Fix <a> elements that have embedded <a> elements by replacing the internal <a> element with its content.

[regulations.generator.node\\_types module](#)

`regulations.generator.node_types.label_to_text(label, include_section=True, include_marker=False)`

Convert a label:list[string] into a human-readable string

`regulations.generator.node_types.take_until_markerless(label_parts)`

`regulations.generator.node_types.to_markup_id(id_parts)`

Given the id parts from the JSON tree, convert to an id that can be used in the front end

`regulations.generator.node_types.type_from_label(label)`

Given a list of label parts, determine the associated node's type

[regulations.generator.notices module](#)

`regulations.generator.notices.add_depths(sxs, starting_depth)`

We use depth numbers in header tags to determine how titles are output.

`regulations.generator.notices.filter_labeled_children(sxs)`

Some children don't have labels. We display those with their parents. The other children are displayed when they are independently, specifically requested.

`regulations.generator.notices.find_label_in_sxs(sxs_list, label_id, fr_page=None)`

Given a tree of SXS sections, find a non-empty sxs that matches label\_id. Some notices may have the same label appearing multiple times; use fr\_page to distinguish, defaulting to the first

`regulations.generator.notices.non_empty_sxs(sxs)`

[regulations.generator.section\\_url module](#)

[regulations.generator.subterp module](#)

[regulations.generator.title\\_parsing module](#)

`regulations.generator.title_parsing.appendix_supplement(data)`

Handle items pointing to an appendix or supplement

`regulations.generator.title_parsing.section(data)`

Parse out parts of a section title.

`regulations.generator.title_parsing.try_split(text, chars=(u'\u2014', '-'))`

Utility method for splitting a string by one of multiple chars

**regulations.generator.toc module**

**regulations.generator.versions module**

**Module contents**

**regulations.management package**

**Subpackages**

`regulations.management.commands package`

**Submodules**

`regulations.management.commands.cache_webpages module`

`regulations.management.commands.compile_frontend module`

`regulations.management.commands.egregs_cache module`

`regulations.management.commands.fetch_wkhtmltox module`

## Module contents

### Module contents

## regulations.migrations package

### Submodules

[regulations.migrations.0001\\_initial module](#)

[regulations.migrations.0002\\_remove\\_failedcommentsubmission\\_files module](#)

[regulations.migrations.0003\\_delete\\_failedcommentsubmission module](#)

## Module contents

## regulations.settings package

### Submodules

[regulations.settings.base module](#)

[regulations.settings.dev module](#)

[regulations.settings.production module](#)

## Module contents

## regulations.templatetags package

### Submodules

[regulations.templatetags.dash\\_to\\_underscore module](#)

[regulations.templatetags.macros module](#)

[regulations.templatetags.render\\_nested module](#)

[regulations.templatetags.to\\_list module](#)

[regulations.templatetags.underscore\\_to\\_dash module](#)

## Module contents

## regulations.tests package

### Submodules

[regulations.tests.api\\_reader\\_tests module](#)

[regulations.tests.apps\\_tests module](#)

[regulations.tests.base\\_template\\_test module](#)

### 2.1. Subpackages

[regulations.tests.diff\\_applier\\_tests module](#)

`class regulations.tests.diff_applier_tests.DiffApplierTest (methodName='runTest')`

Bases: `unittest.case.TestCase`

```
build_tree()
create_diff_applier()
test_add_nodes_child_ops()
    If we don't know the correct order of children, attempt to use data from child_ops
test_add_nodes_empty_tree()
test_add_nodes_new_section()
test_add_nodes_to_tree()
test_apply_diff()
test_apply_diff_title()
test_child_picking()
test_create_applier()
test_deconstruct_text()
test_delete_all()
test_delete_text()
test_insert_text()
test_insert_text_at_end()
test_set_child_labels_reorder()
    Nodes which have been _moved_ should be ordered in their final resting position
test_tree_changes_new_section()
```

[regulations.tests.generator\\_section\\_url\\_tests module](#)

[regulations.tests.generator\\_subterp\\_tests module](#)

[regulations.tests.generator\\_tests module](#)

[regulations.tests.generator\\_toc\\_tests module](#)

[regulations.tests.generator\\_versions\\_tests module](#)

[regulations.tests.html\\_builder\\_test module](#)

[regulations.tests.label\\_tests module](#)

[regulations.tests.layers\\_appliers\\_test module](#)

```
class regulations.tests.layers_appliers_test.LayersApplierTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_enqueue()
    test_find_all_offsets()
    test_find_offsets_no_pattern()
    test_list_enqueue()
```

```
test_replace_all()
test_replace_at()
test_replace_at_case_sensitive()
test_replace_no_original()
test_replace_skip_location()
test_update_offset_starter()
test_update_offsets()
```

**regulations.tests.layers\_definitions\_tests module**

**regulations.tests.layers\_footnotes\_tests module**

```
class regulations.tests.layers_footnotes_tests.FootnotesLayerTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_multiple_children()
    test_single_note()
    test_sorted_multiple_notes()
```

**regulations.tests.layers\_formatting\_tests module**

**regulations.tests.layers\_internal\_citation\_tests module**

**regulations.tests.layers\_interpretations\_tests module**

**regulations.tests.layers\_location\_replace\_tests module**

```
class regulations.tests.layers_location_replace_tests.LayersLocationReplaceTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_location_replace_text()
    test_update_offsets_html()
```

**regulations.tests.layers\_paragraph\_markers\_tests module**

**regulations.tests.layers\_toc\_applier\_tests module**

**regulations.tests.layers\_utils\_tests module**

```
class regulations.tests.layers_utils_tests.LayerUtilsTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_convert_to_python()
    test_is_contained_in()
```

## regulations.tests.link\_flattener\_tests module

```
class regulations.tests.link_flattener_tests.LinkFlattenerTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_embedded_link()
    test_multiple_level_embedded_links()
    test_multiple_serial_embedded_links()
    test_no_links()
    test_real_world_example()
    test_single_link()
    test_unembedded_links()
```

## regulations.tests.node\_types\_tests module

```
class regulations.tests.node_types_tests.NodeTypesTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_change_appendix()
    test_label_to_text()
    test_type_from_label()
```

## regulations.tests.notices\_tests module

```
class regulations.tests.notices_tests.NoticesTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_add_depths()
    test_filter_children()
    test_filter_children_no_candidates()
    test_find_label_in_sxs_found()
    test_find_label_in_sxs_not_found()
    test_find_label_in_sxs_page()
    test_find_label_in_sxs_top_no_label()
    test_non_empty_sxs()
    test_non_empty_sxs_has_children()
    test_non_empty_sxs_no_paragraph()
```

[regulations.tests.partial\\_view\\_tests module](#)

[regulations.tests.sidebar\\_analyses\\_tests module](#)

[regulations.tests.sidebar\\_help\\_tests module](#)

[regulations.tests.templatetags\\_macros\\_tests module](#)

[regulations.tests.title\\_parsing\\_tests module](#)

```
class regulations.tests.title_parsing_tests.RegTest (methodName='runTest')
    Bases: unittest.case.TestCase

    test_appendix_supplement_ap()
    test_section()
    test_try_split()
```

[regulations.tests.tree\\_builder\\_tests module](#)

```
class regulations.tests.tree_builder_tests.TreeBuilderTest (methodName='runTest')
    Bases: unittest.case.TestCase
```

```
    build_tree()
    test_add_child()
    test_add_child_appendix()
    test_add_child_interp()
    test_add_child_odd_sort()
```

Appendices may have some strange orderings. Make sure they keep order.

```
    test_add_child_root_appendix()
```

Let's add an introductory paragraph child to a root interpretation node and ensure that the children are sorted correctly.

```
    test_add_child_root_interp()
```

Let's add an introductory paragraph child to a root interpretation node and ensure that the children are sorted correctly.

```
    test_add_node()
```

```
    test_all_children_are_roman()
```

```
    test_build_tree_hash()
```

```
    test_make_labelSortable_not_roman()
```

```
    test_make_labelSortable_roman()
```

```
    test_parent_in_tree()
```

```
    test_parent_label()
```

```
    test_roman_nums()
```



---

[regulations.tests.url\\_cache\\_tests module](#)  
[regulations.tests.urls\\_test module](#)  
[regulations.tests.views\\_breakaway\\_tests module](#)  
[regulations.tests.views\\_chrome\\_tests module](#)  
[regulations.tests.views\\_diff\\_tests module](#)  
[regulations.tests.views\\_error\\_tests module](#)  
[regulations.tests.views\\_landing\\_tests module](#)  
[regulations.tests.views\\_navigation\\_tests module](#)  
[regulations.tests.views\\_partial\\_definitions\\_tests module](#)  
[regulations.tests.views\\_partial\\_interp\\_tests module](#)  
[regulations.tests.views\\_partial\\_search\\_tests module](#)  
[regulations.tests.views\\_preamble\\_tests module](#)  
[regulations.tests.views\\_redirect\\_tests module](#)  
[regulations.tests.views\\_sidebar\\_tests module](#)  
[regulations.tests.views\\_sxs\\_tests module](#)  
[regulations.tests.views\\_universal\\_tests module](#)  
[regulations.tests.views\\_utils\\_test module](#)

## Module contents

## regulations.uitests package

### Submodules

[regulations.uitests.base\\_test module](#)  
[regulations.uitests.comment\\_test module](#)  
[regulations.uitests.definition\\_test module](#)  
[regulations.uitests.diff\\_test module](#)  
[regulations.uitests.interp\\_test module](#)  
[regulations.uitests.navigation\\_test module](#)  
[regulations.uitests.scroll\\_test module](#)

---

[regulations.uitests.subheader\\_test module](#)  
2.1. Subpackages

[regulations.uitests.toc\\_test module](#)

[regulations.uitests.utils module](#)



## Module contents

`regulations.views package`

### Submodules

`regulations.views.about module`

`regulations.views.chrome module`

`regulations.views.chrome_breakaway module`

`regulations.views.diff module`

`regulations.views.error_handling module`

`regulations.views.navigation module`

`regulations.views.notice_home module`

`regulations.views.partial module`

`regulations.views.partial_interp module`

`regulations.views.partial_search module`

`regulations.views.partial_sxs module`

`regulations.views.preamble module`

`regulations.views.redirect module`

`regulations.views.reg_landing module`

`regulations.views.sidebar module`

`regulations.views.universal_landing module`

`regulations.views.utils module`

## Module contents

### Submodules

`regulations.all_urls module`

`regulations.apps module`

`regulations.context module`

`regulations.url_caches module`

2.2. Submodules

23

`regulations.urls module`



# CHAPTER 3

---

## Indices and tables

---

- genindex
- modindex
- search



---

## Python Module Index

---

r

```
regulations, 23
regulations.generator, 14
regulations.generator.layers, 12
regulations.generator.layers.base, 7
regulations.generator.layers.diff_applier,
    9
regulations.generator.layers.footnotes,
    10
regulations.generator.layers.layers_appliers, 10
regulations.generator.layers.location_replace,
    11
regulations.generator.layers.meta, 11
regulations.generator.layers.tree_builder,
    11
regulations.generator.layers.utils, 12
regulations.generator.link_flattener,
    13
regulations.generator.node_types, 13
regulations.generator.notices, 13
regulations.generator.sidebar, 13
regulations.generator.title_parsing, 13
regulations.management, 15
regulations.management.commands, 15
regulations.migrations, 15
regulations.settings, 15
regulations.templatetags, 15
regulations.tests, 21
regulations.tests.diff_applier_tests,
    15
regulations.tests.layers_appliers_test,
    16
regulations.tests.layers_footnotes_tests,
    17
regulations.tests.layers_location_replace_tests,
    17
regulations.tests.layers_utils_tests,
    17
```



---

## Index

---

### A

add\_all() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

add\_child() (in module regulations.generator.layers.tree\_builder), 11

add\_depths() (in module regulations.generator.notices), 13

add\_node\_to\_tree() (in module regulations.generator.layers.tree\_builder), 11

add\_nodes\_to\_tree() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

ADDED\_OP (regulations.generator.layers.diff\_applier.DiffApplier attribute), 9

AddQueue (class in regulations.generator.layers.tree\_builder), 11

all\_children\_are\_roman() (in module regulations.generator.layers.tree\_builder), 12

appendix\_supplement() (in module regulations.generator.title\_parsing), 13

apply\_diff() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

apply\_diff\_changes() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

apply\_layer() (regulations.generator.layers.base.InlineLayer method), 7

apply\_layers() (regulations.generator.layers.layers\_applier.LayersApplier method), 10

attach\_metadata() (regulations.generator.layers.base.InlineLayer method), 7

attach\_metadata() (regulations.generator.layers.base.LayerBase method), 8

attach\_metadata() (regulations.generator.layers.base.SearchReplaceLayer method), 8

attach\_metadata() (regula-

tions.generator.layers.footnotes.FootnotesLayer method), 10  
attach\_metadata() (regula-

tions.generator.layers.meta.MetaLayer method), 11

### B

build\_label() (in module regulations.generator.layers.tree\_builder), 12

build\_tree() (regulations.tests.diff\_applier\_tests.DiffApplierTest method), 15

build\_tree() (regulations.tests.tree\_builder\_tests.TreeBuilderTest method), 19

build\_tree\_hash() (in module regulations.generator.layers.tree\_builder), 12

C

convert\_to\_python() (in module regulations.generator.layers.utils), 12

create\_diff\_applier() (regulations.tests.diff\_applier\_tests.DiffApplierTest method), 16

### D

data\_source (regulations.generator.layers.base.LayerBase attribute), 8

data\_source (regulations.generator.layers.footnotes.FootnotesLayer attribute), 10

data\_source (regulations.generator.layers.meta.MetaLayer attribute), 11

deconstruct\_text() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

DELETE (regulations.generator.layers.diff\_applier.DiffApplier attribute), 9

delete() (regulations.generator.layers.tree\_builder.AddQueue method), 11

delete\_all() (regulations.generator.layers.diff\_applier.DiffApplier method), 9

delete\_text() (regulations.generator.layers.diff\_applier.DiffApplier\_replacements() (regulations.generator.layers.base.ParagraphLayer method), 9  
**DELETED\_OP** (regulations.generator.layers.diff\_applier.DiffApplier\_replacements() (regulations.generator.layers.base.ParagraphLayer method), 8  
 attribute), 9  
 DiffApplier (class in regulations.generator.layers.diff\_applier), 9  
 DiffApplierTest (class in regulations.generator.layers.diff\_applier\_tests), 15

**E**

enqueue() (regulations.generator.layers.layers\_applier.LayersApplier\_insert\_all() (regulations.generator.layers.tree\_builder.AddQueue method), 10  
 enqueue\_from\_list() (regulations.generator.layers.layers\_applier.LayersApplier\_insert\_text() (regulations.generator.layers.diff\_applier.DiffApplier method), 9  
 EQUAL (regulations.generator.layers.diff\_applier.DiffApplier\_is\_child\_of\_requested() (regulations.generator.layers.diff\_applier.DiffApplier method), 9  
 attribute), 9

**F**

filter\_labeled\_children() (in module regulations.generator.notices), 13  
 find() (regulations.generator.layers.tree\_builder.AddQueue\_label\_to\_text() (in module regulations.generator.node\_types), 13  
 method), 11  
 find\_all\_offsets() (regulations.generator.layers.location\_replace.LocationReplaceApplier\_LayerBase (class in regulations.generator.layers.base), 7  
 static method), 11  
 find\_label\_in\_sxs() (in module regulations.generator.notices), 13  
 flatten\_links() (in module regulations.generator.link\_flattener), 13  
 FootnotesLayer (class in regulations.generator.layers.footnotes), 10  
 FootnotesLayerTest (class in regulations.generator.layers.footnotes\_tests), 17

**G**

get\_text() (regulations.generator.layers.diff\_applier.DiffApplier\_label\_to\_text() (in module regulations.generator.node\_types), 13  
 method), 9

**H**

has\_moved() (regulations.generator.layers.diff\_applier.DiffApplier\_location\_replace() (regulations.generator.layers.location\_replace.LocationReplace method), 11  
 class method), 9  
 HTML\_TAG\_REGEX (regulations.generator.layers.layers\_applier.LayersApplier\_location\_replace\_text() (regulations.generator.layers.location\_replace.LocationReplace method), 11  
 attribute), 10

**I**

inline\_replacements() (regulations.generator.layers.base.InlineLayer\_location\_replace() (regulations.generator.layers.location\_replace.LocationReplace method), 11  
 method), 7  
 inline\_replacements() (regulations.generator.layers.base.LayerBase\_location() (regulations.generator.layers.base.Replacement attribute), 8

**M**

make\_label\_sortable() (in module regulations.generator.layers.tree\_builder), 12

MetaLayer (class in regulations.generator.layers.meta), 11  
**MODIFIED\_OP** (regulations.generator.layers.diff\_applier.DiffApplier attribute), 9

## N

NodeTypesTest (class in regulations.tests.node\_types\_tests), 18  
 non\_empty\_sxs() (in module regulations.generator.notices), 13  
 NoticesTest (class in regulations.tests.notices\_tests), 18

## O

original (regulations.generator.layers.base.Replacement attribute), 8

## P

ParagraphLayer (class in regulations.generator.layers.base), 8  
 parent\_in\_tree() (in module regulations.generator.layers.tree\_builder), 12  
 parent\_label() (in module regulations.generator.layers.tree\_builder), 12

## R

RegTest (class in regulations.tests.title\_parsing\_tests), 19  
 regulations (module), 23  
 regulations.generator (module), 14  
 regulations.generator.layers (module), 12  
 regulations.generator.layers.base (module), 7  
 regulations.generator.layers.diff\_applier (module), 9  
 regulations.generator.layers.footnotes (module), 10  
 regulations.generator.layers.layers\_applier (module), 10  
 regulations.generator.layers.location\_replace (module), 11

regulations.generator.layers.meta (module), 11  
 regulations.generator.layers.tree\_builder (module), 11  
 regulations.generator.layers.utils (module), 12  
 regulations.generator.link\_flattener (module), 13  
 regulations.generator.node\_types (module), 13  
 regulations.generator.notices (module), 13  
 regulations.generator.sidebar (module), 13  
 regulations.generator.title\_parsing (module), 13  
 regulations.management (module), 15  
 regulations.management.commands (module), 15  
 regulations.migrations (module), 15  
 regulations.settings (module), 15  
 regulations.templatetags (module), 15  
 regulations.tests (module), 21  
 regulations.tests.diff\_applier\_tests (module), 15  
 regulations.tests.layers\_appliers\_test (module), 16  
 regulations.tests.layers\_footnotes\_tests (module), 17

regulations.tests.layers\_location\_replace\_tests (module), 17  
 regulations.tests.layers\_utils\_tests (module), 17  
 regulations.tests.link\_flattener\_tests (module), 18  
 regulations.tests.node\_types\_tests (module), 18  
 regulations.tests.notices\_tests (module), 18  
 regulations.tests.title\_parsing\_tests (module), 19  
 regulations.tests.tree\_builder\_tests (module), 19  
 regulations.uittests (module), 23  
 regulations.uittests.utils (module), 21  
 regulations.views (module), 23  
 relevant\_added() (regulations.generator.layers.diff\_applier.DiffApplier method), 9  
 remove\_moved\_labels() (regulations.generator.layers.diff\_applier.DiffApplier method), 9  
 render\_template() (in module regulations.generator.layers.utils), 12  
 replace\_all() (regulations.generator.layers.layers\_applier.LayersApplier method), 10  
 replace\_at() (regulations.generator.layers.layers\_applier.LayersApplier method), 10  
 Replacement (class in regulations.generator.layers.base), 8  
 replacement (regulations.generator.layers.base.Replacement attribute), 8  
 replacement\_for() (regulations.generator.layers.base.InlineLayer method), 7  
 replacements\_for() (regulations.generator.layers.base.SearchReplaceLayer method), 8  
 roman\_nums() (in module regulations.generator.layers.tree\_builder), 12

## S

scroll\_to() (in module regulations.uittests.utils), 21  
 SearchReplaceLayer (class in regulations.generator.layers.base), 8  
 section() (in module regulations.generator.title\_parsing), 13  
 set\_child\_labels() (regulations.generator.layers.diff\_applier.DiffApplier method), 9  
 shorthand (regulations.generator.layers.base.LayerBase attribute), 8  
 shorthand (regulations.generator.layers.footnotes.FootnotesLayer attribute), 10  
 shorthand (regulations.generator.layers.meta.MetaLayer attribute), 11  
 sort() (regulations.generator.layers.tree\_builder.AddQueue method), 11

T		
take_until_markerless()	(in module regulations.generator.node_types), 13	test_change_appendix() (regulations.tests.node_types_tests.NodeTypesTest method), 18
test_add_child()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_child_picking() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
test_add_child_appendix()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_convert_to_python() (regulations.tests.layers_utils_tests.LayerUtilsTest method), 17
test_add_child_interp()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_create_applier() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
test_add_child_odd_sort()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_deconstruct_text() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
test_add_child_root_appendix()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_delete_all() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
test_add_child_root_interp()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_delete_text() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
test_add_depths()	(regulations.tests.notices_tests.NoticesTest method), 18	test_embedded_link() (regulations.tests.link_flattener_tests.LinkFlattenerTest method), 18
test_add_node()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_enqueue() (regulations.tests.layers_appliers_test.LayersApplierTest method), 16
test_add_nodes_child_ops()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_filter_children() (regulations.tests.notices_tests.NoticesTest method), 18
test_add_nodes_empty_tree()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_filter_children_no_candidates() (regulations.tests.notices_tests.NoticesTest method), 18
test_add_nodes_new_section()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_find_all_offsets() (regulations.tests.layers_appliers_test.LayersApplierTest method), 16
test_add_nodes_to_tree()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_find_label_in_sxs_found() (regulations.tests.notices_tests.NoticesTest method), 18
test_all_children_are_roman()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_find_label_in_sxs_not_found() (regulations.tests.notices_tests.NoticesTest method), 18
test_appendix_supplement_ap()	(regulations.tests.title_parsing_tests.RegTest method), 19	test_find_label_in_sxs_page() (regulations.tests.notices_tests.NoticesTest method), 18
test_apply_diff()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_find_label_in_sxs_top_no_label() (regulations.tests.notices_tests.NoticesTest method), 18
test_apply_diff_title()	(regulations.tests.diff_applier_tests.DiffApplierTest method), 16	test_find_offsets_no_pattern() (regulations.tests.layers_appliers_test.LayersApplierTest method), 16
test_build_tree_hash()	(regulations.tests.tree_builder_tests.TreeBuilderTest method), 19	test_insert_text() (regulations.tests.diff_applier_tests.DiffApplierTest method), 16
		test_insert_text_at_end() (regula-

tions.tests.diff_applier_tests.DiffApplierTest	(regula-	tions.tests.layers_appliers_test.LayersApplierTest
method), 16		method), 17
test_is_contained_in()	(regula-	test_replace_at_case_sensitive()
tions.tests.layers_utils_tests.LayerUtilsTest		(regula-
method), 17		tions.tests.layers_appliers_test.LayersApplierTest
test_label_to_text()	(regula-	method), 17
tions.tests.node_types_tests.NodeTypesTest		test_replace_no_original()
method), 18		(regula-
test_list_enqueue()	(regula-	tions.tests.layers_appliers_test.LayersApplierTest
tions.tests.layers_appliers_test.LayersApplierTest		method), 17
method), 16		test_replace_skip_location()
test_location_replace_text()	(regula-	(regula-
tions.tests.layers_location_replace_tests.LayersLocationReplaceTests		tions.tests.layers_appliers_test.LayersApplierTest
method), 17		method), 17
test_make_labelSortable_not_roman()	(regula-	test_roman_nums()
tions.tests.tree_builder_tests.TreeBuilderTest		(regula-
method), 19		tionsTests.tree_builder_tests.TreeBuilderTest
test_make_labelSortable_roman()	(regula-	method), 19
tions.tests.tree_builder_tests.TreeBuilderTest		test_section()
method), 19		(regulations.tests.title_parsing_tests.RegTest
test_multiple_children()	(regula-	method), 19
tions.tests.layers_footnotes_tests.FootnotesLayerTest		test_set_child_labels_reorder()
method), 17		(regula-
test_multiple_level_embedded_links()	(regula-	tions.tests.diff_applier_tests.DiffApplierTest
tions.tests.link_flattener_tests.LinkFlattenerTest		method), 16
method), 18		test_single_link()
test_multiple_serial_embedded_links()	(regula-	(regula-
tions.tests.link_flattener_tests.LinkFlattenerTest		tions.tests.link_flattener_tests.LinkFlattenerTest
method), 18		method), 18
test_no_links()	(regula-	test_single_note()
tions.tests.link_flattener_tests.LinkFlattenerTest		(regula-
method), 18		tions.tests.layers_footnotes_tests.FootnotesLayerTest
test_non_empty_sxs()	(regula-	method), 17
tions.tests.notices_tests.NoticesTest		test_sorted_multiple_notes()
18		(regula-
test_non_empty_sxs_has_children()	(regula-	tions.tests.layers_footnotes_tests.FootnotesLayerTest
tions.tests.notices_tests.NoticesTest		method), 17
18		test_tree_changes_new_section()
test_non_empty_sxs_no_paragraph()	(regula-	(regula-
tions.tests.notices_tests.NoticesTest		tions.tests.diff_applier_tests.DiffApplierTest
18		method), 16
test_parent_in_tree()	(regula-	test_try_split()
tions.tests.tree_builder_tests.TreeBuilderTest		(regulations.tests.title_parsing_tests.RegTest
method), 19		method), 19
test_parent_label()	(regula-	test_type_from_label()
tions.tests.tree_builder_tests.TreeBuilderTest		(regula-
method), 19		tions.tests.node_types_tests.NodeTypesTest
test_real_world_example()	(regula-	method), 18
tions.tests.link_flattener_tests.LinkFlattenerTest		test_unembedded_links()
method), 18		(regula-
test_replace_all()	(regula-	tions.tests.link_flattener_tests.LinkFlattenerTest
tions.tests.layers_appliers_test.LayersApplierTest		method), 18
method), 16		test_update_offset_starter()
test_replace_at()	(regula-	(regula-
		tions.tests.layers_appliers_test.LayersApplierTest
		method), 17
		test_update_offsets()
		(regula-
		tions.tests.layers_appliers_test.LayersApplierTest
		method), 17
		test_update_offsets_html()
		(regula-
		tions.tests.layers_location_replace_tests.LayersLocationReplaceT
		method), 17
		to_markup_id()
		(in module regulations.generator.node_types), 13
		tree_changes()
		(regulations.generator.layers.diff_applier.DiffApplier
		method), 9
		TreeBuilderTest
		(class in regulations.tests.tree_builder_tests), 19

try\_split() (in module regulations.generator.title\_parsing),

[14](#)

type\_from\_label() (in module regulations.generator.node\_types), [13](#)

## U

unescape\_text() (regulations.generator.layers.layers\_applier.LayersApplier method), [10](#)

update\_offset\_starter() (regulations.generator.layers.location\_replace.LocationReplace method), [11](#)

update\_offsets() (regulations.generator.layers.location\_replace.LocationReplace method), [11](#)