

APPENDIX

A. Prompting Design Results

Table I lists the prompts, our intuition behind designing them, and the validation results.

TABLE I: Our prompts for identifying regulatory changes in AIFMR (①: prompt_T , ②: prompt_S , ③: prompt_D).

Prompt (P), Intuition (I), Validation (V) indicating the number of $\langle \text{correct}, \text{partially correct}, \text{incorrect}, \text{irrelevant} \rangle$ out of a total of 16 changes	
①	<p>(ZS₁) P: “Please determine all changed phrases between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$”. I: Straight forward instruction. V: $\langle 6, 2, 1, 7 \rangle$. (ZS₂) P: “The task is to determine the regulatory changes between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$ List all changed phrases.” I: Explicit exposure the task. V: $\langle 4, 12, 0, 0 \rangle$. (ZS₃) P: “The task is to determine the regulatory changes between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$ List all changed phrases. Format your response as JSON object with “ID”, “old-phrase”, “new-phrase”, “change-type” as the keys.” I: Enforce some output format. V: $\langle 10, 5, 1, 0 \rangle$.</p> <p>(FS₁) P: ZS₂ + $\{E_1\}$. I: Provide only one example (E_1). V: $\langle 1, 4, 2, 9 \rangle$. (FS₂) P: ZS₂ + $\{E_1, E_2, E_3\}$. I: Provide three examples $\{E_1, E_2, E_3\}$. V: $\langle 12, 2, 2, 0 \rangle$.</p> <p>(CoT₁) P: ZS₁ + the <i>reasoning trigger</i>: “Let’s think step by step” [?]. I: triggering the reasoning capability of the LLM on a basic prompt. V: $\langle 5, 9, 2, 0 \rangle$. (CoT₂) P: ZS₂ + <i>reasoning trigger</i>. I: Triggering the reasoning when the task is explicitly exposed. V: $\langle 9, 7, 0, 0 \rangle$. (CoT₃) P: ZS₃ + <i>reasoning trigger</i>. I: Triggering the reasoning framed within a fixed output format. V: $\langle 12, 1, 3, 0 \rangle$. (CoT₄) P: FS₂ + <i>reasoning trigger</i>. I: Triggering the reasoning supported by providing examples. V: $\langle 11, 1, 4, 0 \rangle$. (CoT₅) P: Variant of FS₂ with other examples $\{E_1, E_4, E_5\}$ + <i>reasoning trigger</i>. I: Variant of CoT₄. V: $\langle 13, 1, 2, 0 \rangle$.</p>
②	<p>(ZS₁) P: “Please determine all semantic changes between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$”. I: No details are provided. V: $\langle 0, 0, 16, 0 \rangle$. (ZS₂) P: “Identify the following regulatory changes in the following legal provisions: Changed phrases in the old provision. Changed phrases in the new provision. Change type (addition describes that the changed text segments have been added to the new text, deletion describes the case when the segments are removed from the old text or replacement describing the case when the text segments in the old text are replaced in the new text. Changed concepts (describing whether the changed text segments refer to a modal verb, a person, an artifact, event or an action, a reference, time or temporal phrase, or a location). The legal provisions is delimited with triple backticks. old text: $\{p_i\}$, new text: $\{v_j\}$”. I: Exposure of the taxonomy. V: $\langle 2, 12, 2, 0 \rangle$.</p> <p>(FS₁) P: ZS₁ + $\{E_1\}$ including the exact text segments of the changed concepts, added concepts, and removed concepts alongside their labels (e.g., “Regulation (EC) No 1060/2009” is <i>Reference</i>). I: Show the demarcation of the phrase as part of the task. V: $\langle 0, 12, 4, 0 \rangle$. (FS₂) P: FS₁ + $\{E_1, E_2, E_3\}$. I: Provide more examples. V: $\langle 0, 12, 4, 0 \rangle$.</p> <p>(CoT₁) P: ZS₁ + <i>reasoning trigger</i>. I: same as ZS₁. V: $\langle 0, 0, 16, 0 \rangle$. (CoT₄) P: Variant of ZS₂ with fixing the output format + <i>reasoning trigger</i>. I: Expose the taxonomy and enforce the output format. V: $\langle 0, 11, 5, 0 \rangle$.</p>
③ §	<p>(ZS₁) P: “Please determine all deontic changes with respect to the addressee AIFM between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$”. I: Pre-define the addressee. V: $\langle 0, 0, 6, 0 \rangle$. (ZS₂) P: “Identify the following regulatory changes in the legal texts: Changed phrase, Change type (addition, replacement, or deletion), Changed concepts (Addressee, Target, Beneficiary, Action, pre-condition, or constraint), The legal texts is delimited with triple backticks. Format your response as a JSON object with “ID”, “Changed-phrase”, “Change-type”, and “Changed-concepts” as the keys. If the information isn’t present, use “unknown” as the value. Make your response as short as possible. old text: $\{p_i\}$, new text: $\{v_j\}$”. I: Exposure of the taxonomy. V: $\langle 3, 0, 3, 0 \rangle$.</p> <p>(FS₁) P: “The task is to determine the regulatory changes between the following two legal texts: old text: $\{p_i\}$, new text: $\{v_j\}$. List all changed text.” + $\{E_1\}$ including changed deontic concepts. I: Exposure of the taxonomy. V: $\langle 0, 6, 0, 0 \rangle$. (FS₂) P: Variant of FS₁ with three examples $\{E_1, E_2, E_3\}$. I: Provide more examples. V: $\langle 0, 5, 1, 0 \rangle$.</p> <p>(CoT₁) P: ZS₁ + <i>reasoning trigger</i> I: Explicitly ask for explanation when the addressee is pre-defined. V: $\langle 0, 0, 6, 0 \rangle$. (CoT₂) P: ZS₂ + <i>reasoning trigger</i> I: Exposure of the taxonomy and enforcement of the output. V: $\langle 3, 1, 2, 0 \rangle$. (CoT₃) P: FS₁ + <i>reasoning trigger</i> I: Provide only one example and ask for further explanation. V: $\langle 0, 5, 1, 0 \rangle$. (CoT₄) P: FS₂ + <i>reasoning trigger</i> I: same as FS₂. V: $\langle 0, 5, 1, 0 \rangle$.</p>

§ Note that the changes relevant to the deontic layer are only six since we analyze with respect to a specific addressee (AIFM, in this case).