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Reconstruction of The Clauses of The Cooperation Agreement for Non-B3 Industrial Waste Management to Achieve Legal Certainty and Justice for The Parties

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Abstract. *The transfer of non-hazardous industrial waste to a business partner raises legal issues when the transfer of material control is treated as a transfer of all environmental responsibilities. This study examines the construction of this contractual relationship, identifies points of uncertainty in the drafting of the clauses, and formulates a reconstruction. The study uses normative legal methods with a statutory and conceptual approach. Legal materials are analyzed through systematic interpretation to distinguish mandatory environmental obligations from performance and risk allocation that can be agreed upon. The analysis shows that contractual certainty requires a link between object specifications, division of labor, evidence of implementation, and consequences of violations. The point of delivery can determine the transfer of physical risks according to a valid agreement, but does not automatically relieve certain parties from obligations under statutory regulations. This study offers a K3P framework that links legal certainty, contractual justice, environmental protection, and accountability through the formulation of verifiable obligations. The reconstruction includes verification of classification, material traceability, proportional supervision, handling of non-conformities, and settlement of obligations after termination. The proposed framework and example clauses are the result of prescriptive reasoning; Its effectiveness in reducing disputes still requires testing of contracts and actual management implementation.*

Keywords: *Cooperation; Justice; Legal; Management; Reconstruction.*

1. Introduction

Industrial waste management contract issues don't end when the material leaves the production site. When the producer appoints a transporter and a recipient, a series of obligations are established concerning material information, secure delivery, acceptance, and subsequent management. Disputes can arise if the contract specifies the price and delivery time but doesn't clarify the relationship

between the performance of the work and responsibility for its consequences. This issue remains relevant for non-hazardous and toxic (non-B3) waste, as material classification and management compliance are two separate legal issues.

The non-B3 waste management framework in Indonesia has been regulated separately through Government Regulation No. 22 of 2021 and Regulation of the Minister of Environment and Forestry No. 19 of 2021. Article 450 of Government Regulation No. 22 of 2021 differentiates between registered non-B3 waste and special non-B3 waste, while Article 452 links the management of registered non-B3 waste to technical requirements and details in environmental approvals. This demonstrates that the term non-B3 is not a freely assigned identity in trade documents. Legal classification follows applicable provisions and material conditions, not solely the will of the parties.

On the other hand, the relationship between waste-producing companies and transporters, collectors, or users can be outlined in a cooperation agreement. Book III of the Civil Code provides the basis for establishing such a relationship. However, the validity of the agreement under Article 1320 and its binding force under Article 1338 does not mean that every clause in the agreement provides adequate legal protection. For example, a statement that "all responsibility shifts after the waste is collected" may help divide the commercial burden between the parties, but it does not automatically eliminate obligations directly imposed by environmental law.

Problems arise when the agreement only regulates aspects of waste delivery, price, payment, and time period without regulating in detail the division of responsibility for risks arising in the process of transportation, storage, processing, utilization, or the environmental impacts that arise.

2. Research Methods

This research is a normative juridical legal study that focuses on the relationship between legal rules, the interpretation of contract principles, and the formulation of appropriate contract provisions. A statutory approach is used to examine the position and scope of the provisions of the Civil Code, Law Number 32 of 2009 concerning Environmental Protection and Management and relevant amendments, Government Regulation Number 22 of 2021, and Ministerial Regulation Number 19 of 2021. A conceptual approach is used to interpret the principles of freedom of contract, good faith, proportionality, default, and environmental accountability. The analysis is prescriptive: the rules found are compared with the risks at each stage of management and then outlined as draft clauses that can be assessed objectively.

3. Results and Discussion

3.1. Legal Construction of the Non-B3 Waste Management Cooperation Agreement

Non-B3 waste management partnerships can combine elements of material sales, transportation, and service provision. The qualification of these partnerships is determined by the content of the agreement, not simply the title of the document. If a producer sells usable material and requires proof of its use, the recipient's obligation cannot be simply interpreted as an obligation to pay the price. Conversely, when a producer pays for handling services, the contract must specify the work purchased and the output proving its completion. Article 1319 of the Civil Code establishes that both named and unnamed agreements are subject to general contract provisions.

Article 1320 of the Civil Code requires agreement, competence, a specific object, and a valid cause. The specific object does not mean that the entire amount of material must be known when the contract is signed; Article 1333 allows the amount to be determined or calculated later as long as the type of goods can be determined. Therefore, a weakness in the formulation of the estimated volume does not automatically invalidate the agreement. The legal issue is whether the type, quality, and method of determining the amount are clear enough to assess the fulfillment of the performance. At the same time, the purpose of a contract that is contrary to law does not become valid simply because it is agreed upon, as reflected in the limits in Articles 1335 and 1337.

The binding force of a contract under Article 1338 must be read in conjunction with the obligation to act in good faith and Article 1339 concerning propriety, custom, and law. With this reading, a clause that transfers all responsibility from the time the cargo leaves the farthest factory gate must be examined as an internal distribution of burdens. Such a clause cannot be used as a justification for rejecting public obligations imposed by law on the producer, carrier, or recipient. Article 1340 also limits the consequences of an agreement on the parties, so that the agreement between two companies does not automatically bind the public who suffers losses.

The sectoral framework distinguishes between listed non-B3 waste and special non-B3 waste. Management consequences must be determined by examining the category, origin, and applicable requirements under Government Regulation No. 22 of 2021 and Ministerial Regulation No. 19 of 2021. Articles 450–451 of Government Regulation No. 22 of 2021 link listed categories to Appendix XIV and special categories to the determination of exemptions. For listed categories, Article 452 places management details in the producer's Environmental Approval, including changes if new waste is generated that is not yet covered. The results of the examination should be outlined in contract specifications consistent with that

document. An agreement between the parties does not authorize the creation of a non-B3 status or replace legally mandated determination procedures. Similarly, a contract should not copy all B3 waste management requirements without examining their relevance to the non-B3 object.

Thus, distinct but interrelated regulatory spaces exist. Regulations establish minimum obligations and limits on permissible activities; contracts define the division of labor, rewards, evidence of performance, and consequences for breach between the parties. The concept of relational contracts in the study by Christie, Saintier, and Viven-Wilksch (2022) helps explain the need for cooperation throughout implementation. However, these arguments regarding construction contracts in the UK and Australia are used to a limited extent to interpret ongoing relationships, without transferring the doctrine to Indonesian positive law.

3.2. Weaknesses of the Non-B3 Waste Management Agreement Clause

The weakness of a clause should be assessed not solely on the basis of its presence or absence, but rather on its ability to address the actual circumstances that may arise when waste is transferred from one actor to another. An agreement may appear complete because it contains provisions on objects, responsibilities, reporting, default, and termination, but still leave uncertainty if its formulation does not specify benchmarks, proof, or follow-up procedures. The main problem, therefore, lies in the gap between the normative statements in the contract and the implementation of obligations in the field. Based on this, the following five weaknesses are discussed through the potential legal consequences, while acknowledging that this normative research does not audit a specific company's contract.

1) The object clause is too general and does not explain the type, characteristics, volume, quality, location and purpose of waste utilization.

The ambiguity of the object touches on the requirements regarding a specific matter as stipulated in Articles 1320 and 1333 of the Civil Code. The term "all non-B3 waste" fails to address questions regarding the source of the production process, the form of the material, the contamination conditions, the measurement method, or whether the material is delivered for sale, use, or processing in exchange for services. However, the non-B3 classification is a legal category that must be referred to the actual provisions and characteristics of the material, not simply the naming conventions adopted by the parties. Ministerial Regulation of the Minister of Environment and Forestry Number 19 of 2021 differentiates between registered non-B3 waste and special non-B3 waste; this distinction must be understood before determining the type of activity to be contracted.

For example, a producer declares that it will deliver solid residues according to certain specifications, but subsequent deliveries show changes in water content

or ingredient mix due to changes in the production process. Without clear tolerance limits, sampling procedures, and rights of rejection, these differences can be disputed as a breach of contract by the producer or as a unilateral rejection by the manager. Therefore, specification attachments are not only useful for operational personnel; they serve as an objective reference when judges or arbitrators are asked to assess whether the performance has been met. Castro-Lopez, Iglesias, and Santos-Vijande's (2026) study of circular economy clauses reinforces the view that contractual provisions can shape coordination between actors, although their findings are managerial in nature, not a direct interpretation of Indonesian law.

2) The division of responsibilities between producers and managers is not always clearly defined.

The division of responsibility is often simplified by stating that all risk transfers when the waste passes through the company's gates. This formulation conflates the transfer of risk over the goods, physical control, the obligation to provide information, and liability for unlawful acts. The producer remains responsible for the correct identification and condition of the material under his/her responsibility before handover. Conversely, the manager or transporter should not be held liable for errors that occurred entirely before the material was in their possession, unless there is a valid contractual or other legal basis. A fair allocation of losses must take into account the source of liability, actual control, causal relationships, and provisions that cannot be deviated from by contract.

In the internal relationship between the parties, the delivery point can be determined through time, location, weighing data, cargo identity, and proof of receipt. However, regulating the delivery point does not eliminate the rights of affected communities or the authority of environmental officials derived from the law. Afrizal, Dwisvimiar, and Fajar (2026) place the issue of civil liability for non-B3 waste in the context of environmental and community losses; the study emphasizes the need to separate the basis for community claims from cost sharing in business relationships. In situations where there are multiple actors, the contract is more appropriate to include a procedure for tracing the cause rather than simply designating one party as the sole risk bearer.

3) Monitoring and documentation mechanisms are not always adequately regulated.

Oversight written simply as a right to request a report often falls short of explaining what must be inspected, when it must be conducted, and what evidence must be retained. A waybill proves the movement of a load at a specific time, but it does not automatically indicate that the material was received at the specified quality level and managed at the destination. Similarly, a payment receipt is not, in itself, proof of completion of environmental obligations. To avoid

gaps in evidence, the contract should link the material identity, weighing results, handover report, receipt record, and utilization or processing report in a single, traceable sequence.

Joint oversight does not mean that one party gains unlimited access to the other's facilities. The arrangement must respect occupational safety, confidentiality of business information, data protection provisions, and proportionality of audit costs. The oversight model can differentiate between routine inspections, indication-based audits, and incident verification. Nguyen and Zuidwijk (2025) and Klassen et al. (2023) highlight the importance of integrating formal rules with verification and cooperation between partners. In this study, this integration translates into the right to obtain evidence and the obligation to follow up on non-compliances, not the requirement to implement specific technologies.

4) Default clauses are often so general that it is difficult to determine the form of violation and its consequences.

The clause stating "every violation will be subject to sanctions in accordance with the provisions" does not specify which performance is considered a failure or how the level of failure is determined. Article 1238 of the Civil Code provides the basis for assessing negligence, while Article 1243 relates to claims for compensation for costs, damages, and interest under conditions stipulated by law. Therefore, the criteria for delay, non-fulfillment of specifications, unavailability of documents, and deviation from management objectives should be formulated separately. Without these benchmarks, the claimant will have difficulty proving a violation, while the claimant faces uncertainty regarding the actual actions ordered by the contract.

The principle of proportionality does not require that every violation receive the same consequences. Hernoko (2016), Nugroho, Rohman, and Paruq (2025), and Wardhana, Priyono, and Musyafah (2025) explain the relevance of a fair distribution of rights and obligations in contract design. Based on this, remediable administrative violations can be distinguished from failure to fulfill basic obligations and actions that pose an immediate danger. Agreements should provide an opportunity for remediation as long as it is appropriate to the nature of the violation, but should not use the remediation period as an excuse to delay legally mandated environmental safeguards.

5) Termination clauses can give rise to disputes if they do not regulate procedures for notification, redress of violations, and settlement of post-termination obligations.

The five weaknesses mentioned above are causally related. Unclear objects complicate performance determination; unmeasured performance hinders oversight; unavailable evidence weakens the determination of default; and

improperly classified default complicates the exercise of termination rights. Therefore, reconstruction cannot be achieved simply by adding a single liability clause. An integrated design is needed that links material identity, perpetrators, evidence of implementation, corrective procedures, and legal consequences throughout the entire cooperation cycle.

Termination of a waste management agreement presents issues not always encountered in a one-time transaction. At the time the contractual relationship is terminated, there may still be waste in vehicles, material inventory at the management facility, unpaid invoices, or proof of utilization that has not been submitted. A clause that only authorizes "termination at any time" has the potential to create a vacuum of responsibility for such situations. Article 1338 of the Civil Code concerning binding force and good faith must be read in conjunction with the provisions on reciprocal cancellation of obligations in Articles 1266–1267, taking into account the valid grounds and procedures for termination.

Post-termination provisions should address material inventory, reconciliation of payments and weighing data, submission of management records, incident resolution, and transfer of materials to legally compliant parties, if necessary. Christie, Saintier, and Viven-Wilksch (2022) demonstrate the usefulness of a relational contractual perspective in maintaining long-term partnerships, although their research draws on legal developments in other jurisdictions. A relevant lesson is that the termination of an agreement does not extinguish obligations that, by their source and nature, remain obligatory. It is also inappropriate to assume that a termination clause can terminate environmental remediation obligations mandated by public law.

3.3. Reconstruction of the Agreement Clauses

The object clause should include the origin of the process, material identity, basis for classification, relevant characteristics, method of determining quantity, location of delivery, and management objectives. These specifications serve as the basis for acceptance inspections. If changes to the production process alter the characteristics of the material, subsequent shipments should be reviewed. The right of rejection must be accompanied by reasons and evidence, while the producer is given the opportunity to conduct a counter-inspection. The agreed inspection does not replace any legal testing or procedures required for the material in question.

The subsequent distribution of performance depends on the actual work performed. The producer provides information and prepares materials within its scope; the carrier ensures the condition of the cargo and its accuracy; the recipient inspects, records, and carries out the agreed-upon activities. If a single entity performs multiple functions, the contract should still outline them to identify the source of failure. This clarification also prevents the use of the term "processing"

as a general term for all activities, even though the non-B3 regime distinguishes processing activities with their own requirements.

Table Mapping of the risks of the formulation and direction of clause reconstruction

Component	Formulation risk	Direction of reconstruction and evidence
Object	Type or quality is difficult to determine	Specifications and basis for classification according to environmental documents
Work	Declarative obligations	Division of tasks, outputs, and acceptance criteria
Transfer	The waybill is considered complete evidence	Minutes of Article 39 and Appendix V; handover point data
Advanced recipient	Executor and purpose not traceable	Identity of facilities and derivative contractual obligations
Responsibility	Physical risk is equated with all responsibilities	Separate internal allocations from public obligations
Supervision	Outgoing data is not connected to realization	Log book, reconciliation, management evidence, and corrections
Default	Uniform remedy for all violations	Size of violation, evidence, and opportunity for correction
Termination	Remaining stock and liabilities are ignored	Legitimate transition, final reconciliation, and continuing obligations
Incident	Action pending determination of error	Initial safeguards, interim costs, and final charge determination
Dispute	Forum not yet determined	Firm forum selection according to dispute type and law

The matrix above shows that the most fundamental change lies in the function of the clause: from an abstract statement of obligations to a testable obligation. The object must be outlined in an agreed specification annex, including the source of the material, the relevant legal category, quality, volume range, inspection method, and final use. If the production process changes and affects the characteristics of the material, the contract should provide for mandatory notification, review of the specifications, and written approval before subsequent deliveries. Such an arrangement reduces the likelihood that a technical change will be deemed automatically included in the original object.

The chain of conduct also requires a distinction between the obligation to exercise reasonable care and the obligation to produce specific outcomes. For example, a carrier is obligated to follow safe delivery procedures in accordance with applicable regulations; while proof of receipt at the destination point is an output that must be delivered in the agreed format and timeframe. Pannebakker (2024) explains the importance of carefully interpreting sustainable development clauses to ensure that contractual promises have measurable consequences. This distinction helps prevent environmental clauses from becoming unenforceable moral commitments.

Pricing clauses should be tailored to the nature of the relationship: some waste has economic value as secondary raw materials, while other materials require management services at a cost. Contracts should separate material prices,

transportation costs, inspection costs, and costs resulting from demonstrable non-conformities. When weighing discrepancies occur, a re-inspection mechanism or the appointment of a comparison scale is more appropriate than making a unilateral, final determination by one party. The circular economy concept, as explored by Castro-Lopez et al. (2026) and Tseng et al. (2025), is useful in demonstrating the importance of designing partnerships that promote the continuity of material flows while maintaining efficiency.

Reconstruction also needs to address regulatory changes and technical circumstances. The parties can agree on a review mechanism that includes notification of changes, an assessment of the legality of the activity, a measurable cost adjustment, and a written addendum. If a change renders the agreed-upon management method no longer valid, commercial options should not preempt compliance; deliveries should be suspended or redirected as required by law. This approach prevents the agreement from becoming a static document that loses relevance when the nature of the waste, the management facilities, or the regulatory requirements change.

3.4. Reconstruction of the Responsibility Clause

Liability clauses should be based on the principle that the party controlling or approving a management stage is responsible for the risks arising from that stage. Waste producers are responsible for the initial classification, characteristics, quantity, and condition of the waste upon delivery. Waste managers are responsible for transportation, receipt, storage, processing, utilization, and final delivery, within the scope of the cooperation.

The principle of control should be understood as the starting point for attribution of liability, not an absolute rule that the party in possession of the material always bears all consequences. There are distinctions between responsibility for the conformity of information at the time of bidding, responsibility for the physical condition during loading, responsibility for transportation security, and responsibility for processing or utilization. This division should be structured in a role matrix that serves as a binding attachment, so that the parties can link each stage to the responsible party, proof of handover, and incident handling mechanisms.

Discussions of liability must also distinguish breach of contract from unlawful acts. A breach of contract claim rests on an obligation arising from a contract, while Articles 1365 and 1366 of the Civil Code provide an important basis for assessing liability for unlawful acts and negligence. In the environmental sector, Article 87 of the Environmental Protection and Management Law provides a specific framework for claims for compensation and/or certain actions. These regimes may overlap, but the evidence and basis for claims are not identical. Therefore, a clause stating that "all environmental disputes shall be resolved only through contractual

means" cannot be used to exclude legal mechanisms available to the state or third parties.

The absolute liability provisions in Article 88 of the Environmental Management and Management Law should not be applied automatically simply because a dispute relates to industrial waste. Their application must be tested against the elements of activity and circumstances defined by applicable legal formulations. Afrizal et al.'s (2026) research on community losses resulting from non-hazardous waste management serves to demonstrate the importance of separating liability based on fault and the debate over victim protection; however, the need for legal reform suggested by other research should not be treated as if it has become a positive norm. Such a distinction is necessary to prevent contracts from containing excessive or misguided references to liability.

If the manager appoints subcontractors, the agreement should specify the terms of approval, technical and legal capabilities, information flows, and reporting obligations applicable to the derivative contracts. Delegation of work does not automatically create direct contractual relationships with all parties in the management chain; responsibilities must be interpreted in light of the existing legal relationships and obligations. Sustainability governance literature emphasizes the role of oversight between partners to ensure that the transfer of work does not simultaneously eliminate accountability (Klassen et al., 2023; Nguyen and Zuidwijk, 2025).

3.5. Reconstruction of the Supervision Clause

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3.6. Reconstruction of Default Clause

A breach of contract clause should distinguish between minor, material, and serious breaches. Minor breaches may result in a warning and an obligation to correct the breach. Material breaches may result in a fine, compensation, or suspension. Serious breaches that cause harm or violate legal provisions may constitute grounds for termination of the partnership, a claim for compensation, an obligation to restore the contract, and legal action in accordance with applicable regulations.

Classification of breaches of contract should begin with the identification of principal and supporting obligations. Late payment, delivery of materials outside specifications, change of destination without approval, and failure to provide evidence of management are events of different nature and impact. A good clause does not simply list sanctions; it links each type of violation to a reasonable means

of proof and opportunity for remediation. For example, administrative delays can be subject to notice to complete documentation; out-of-specification deliveries can be suspended pending review; while actions that pose an immediate risk require immediate cessation of risky activities and prompt action.

The division of minor, material, and serious is a proposed contractual classification, the criteria for which should be clarified by the parties. These measures should not be treated as three levels of formal sanctions under environmental law. Criteria that may be considered include the magnitude of the deviation from the principal obligation, the extent of the harm, the likelihood of remediation, recurrence of the violation, and the risk to health or the environment. Thus, correctable violations do not necessarily result in contract termination, but the absence of explicit sanctions should not incentivize harmful behavior.

In cases of claims for compensation, Article 1243 of the Civil Code should be read in conjunction with provisions regarding negligence, causal relationships, and relevant loss assessments. The amount of the agreed fine should be formulated transparently, avoiding double imposition of the same loss item. Limitations of liability for commercial risks are negotiable as long as they are valid; however, such clauses cannot eliminate obligations that are legally enforceable. Pannebakker (2024) emphasizes the importance of accurately constructing the consequences of sustainability clauses, while Wardhana et al. (2025) demonstrate the risk of disproportionality of rights and obligations in standard clauses.

A breach resolution clause should outline the following steps: identification, written notification, clarification, corrective action, re-verification, and determination of legal consequences if the repair fails. A seven- or fourteen-day deadline, if used, is merely a sample negotiation outcome that must be adjusted to the specific performance; it is not a generally accepted standard under Government Regulation No. 22 of 2021. This design allows the contractual procedure to serve the purpose of achieving performance, rather than becoming a formal obstacle to remediation.

3.7. Reconstruction of the Termination Clause of the Agreement

Termination of an agreement should not be done unilaterally without justification. The mechanisms offered include written notice, an opportunity to correct the violation, a warning if necessary, negotiation, termination if the violation is not corrected, and settlement of post-termination obligations. This design provides legal certainty and prevents disputes resulting from termination at will.

Termination provisions should distinguish between terminations due to expiration of the term, mutual agreement, material breach, inability to legally carry out activities, or other agreed-upon circumstances. For remediable violations, notice

and a remediation period can ensure that the right to terminate the contract is not exercised arbitrarily. In situations where activities pose an imminent threat to the environment, suspension of risky activities may be necessary while further legal action is assessed. The distinction between temporary and permanent termination should be clearly stated in the contract.

The most significant issues often arise after the contract is declared over. The parties need to inspect the waste inventory received but not yet managed, assess unreported management results, settle outstanding payments, and agree on the safekeeping of materials that cannot yet be removed. These obligations must be aligned with the facility's capabilities and legal requirements. It is inappropriate to require immediate vacancy of the facility if such an order would result in the transfer of waste to a non-compliant location.

At the legal construction level, termination is an event that terminates or changes the future performance relationship, but does not automatically extinguish claims regarding past breaches, document preservation obligations, or remedial actions still required by law. Christie et al. (2022) emphasize the importance of cooperation and good faith in relational contracts; these principles provide a conceptual basis for developing measurable transition procedures without equating Indonesian waste contracts with construction contracts in other countries. By placing transition obligations as part of the contract, the agreement reduces the scope for subsequent disputes arising from the termination of the collaboration.

3.8. Reconstruction of the Compensation and Recovery Clause

The agreement should distinguish between contractual damages, environmental damages, and restoration costs. The clause should specify the type of damage, the calculation method, the responsible party, the mechanism for proving the damage, the payment deadline, and the recovery mechanism.

Compensation arising from waste management relationships needs to be differentiated according to the basis and interests protected. First, contractual losses such as return transportation costs, re-inspection, or service delays are related to non-fulfillment of agreed performance. Second, third-party losses can be assessed based on relevant civil liability bases, including Article 1365 of the Civil Code. Third, environmental handling and recovery costs must be linked to obligations and procedures under environmental law. These three should not be conflated under the formula "all losses are borne by the manager" because each requires a different assessment of the basis of responsibility and proof.

Claims mechanisms should include notification of the incident, documentation of the source of the loss, mitigation measures, a causal relationship examination, and the option of independent expert assessment if technical discrepancies exist. If the

loss is suspected to have arisen from the fault of multiple parties, the contribution assessment should be based on implementation data, not the assumption that the party with the last possession of the material is necessarily at fault. This model allows compensation to be viewed as a measurable means of recovery, not simply as a means of pressure on a weaker business partner.

In force majeure, Articles 1244 and 1245 of the Civil Code should be the basis for evaluating the relationship between an event for which the debtor cannot be held responsible and a failure to fulfill the obligation. Contracts may require notification, proof of the existence of obstacles, and efforts to mitigate losses. However, force majeure should not be used as an excuse to leave materials unsecured or to waive legally enforceable preventive obligations. Nor should a foreseeable increase in normal operating costs or a shortage of vehicles necessarily constitute force majeure.

If the dispute concerns pollution or public harm, the compensation clause between business actors does not bind third parties who are not contractual parties. Article 87 of the Environmental Management and Management Law and relevant civil provisions must still be assessed based on concrete circumstances. Findings by Afrizal et al. (2026) regarding the need for community protection in non-B3 waste disputes demonstrate that victims' interests cannot be simplified as a matter of internal cost sharing. Therefore, contractual certainty demands a clear delineation between compensation for losses between parties and restitution obligations or responsibilities to the community.

3.9. Agreement Reconstruction Model

This study proposes the K3P Model: Legal Certainty, Contractual Fairness, Environmental Protection, and Parties' Accountability. The model places clause clarity, division of responsibilities, environmental protection, and accountability as the four main elements of a non-B3 waste management contract.

The K3P model is intended as a prescriptive synthesis of identified issues, not as a new legal standard or a government-approved administrative instrument. Legal certainty requires definable objects and outcomes; contractual fairness requires a proportional distribution of benefits and risks; environmental protection requires compliance with applicable standards and the prevention of impacts; and accountability requires a demonstrable link between obligations, actions, and their legal consequences. These four elements cannot operate in isolation. A clearly defined object but no proof of handover, for example, still leaves open the issue of determining the responsible party.

The K3P construction derives its doctrinal basis from the principle of proportionality as discussed by Hernoko (2016) and the principle of good faith in contract implementation. Meanwhile, Pannebakker (2024) positions the

sustainability clause as an obligation that must be interpreted concretely, and Nguyen and Zuidwijk (2025) demonstrate the importance of combining contracts with collaborative governance. The difference in this study lies in translating the framework into a matrix of obligations, evidence, responsible parties, and incident resolution for cooperative relationships in non-B3 industrial waste management based on the Indonesian legal framework. Thus, the novelty lies not merely in the K3P acronym, but rather in the functional relationship between the four elements in the clause's formulation.

Operationally, this model can be used at the pre-contract stage through partner identity and capability checks, material classification, and risk mapping. At the implementation stage, the model tests for the existence of weighing documents, acceptance reports, management reports, supervision, and incident response. At the final stage, the model tests for material reconciliation, payment settlement, final documentation, and post-termination obligations. Each stage must determine whether a measure is derived from regulatory requirements or represents a service target agreed upon by the parties. This distinction is important to prevent the model from misleading users regarding its legal standing.

The effectiveness of the K3P model cannot be proven solely based on normative legal analysis. Future testing will require reading actual contracts, checking document consistency, and analyzing actual disputes or incidents. This methodological boundary definition ensures that the research contribution is positioned squarely as a testable contractual design, rather than as a survey result of a decline in violation rates. With this boundary, the model has considerable room for further research.

3.10. The Concept of an Ideal Clause

"Each party is responsible for managing non-hazardous waste according to the stages of activity within its control. Transferring control of non-hazardous waste to another party does not eliminate the parties' obligation to ensure that management is carried out in accordance with statutory provisions and agreed management standards."

The ideal clause formulation above needs to be elaborated in several implementing provisions to avoid merely producing a general statement of responsibility. First, the object clause must refer to the specification attachment approved by the parties, containing the type, origin, material characteristics, volume range, delivery location, and management objectives. Second, the handover clause must establish factual evidence of the transfer of control without considering it an absolute exemption from legal obligations. Third, the supervision clause needs to specify the documents that must be available, the party who keeps them, the deadline for submission, and how to correct data discrepancies.

Fourth, the change of circumstances clause should mandate notification and evaluation if the production process, material characteristics, recipient facilities, or legal requirements change in a way that impacts the scope of the collaboration. Fifth, the default clause should distinguish between remediable violations and circumstances requiring immediate safeguards. Sixth, the termination clause should ensure that all waste and documents remaining in the management chain receive clear handling. This arrangement places dispute prevention as part of the performance structure, not merely as the final clause on the resolution forum.

As an example of a traceability formulation, the parties could agree: "Each delivery is recorded with the material identity, weighing results, time and location of handover, and the recipient's identity. The recipient submits confirmation of receipt and a report on the results of the management within the timeframe specified in the service attachment. Discrepancies in the data must be clarified through a joint inspection before being declared a breach of contract." This formulation is an academic example that must be adjusted to legal provisions, waste categories, and implementer capabilities; the deadlines set in the attachment are contractual agreements, not regulations that apply uniformly to all non-B3 waste.

Examples of clauses regarding dispute resolution can first distinguish between technical and legal disputes. Differences in weight or material quality can be examined through joint verification or expert opinion, while disputes over rights and obligations can be resolved through negotiation, mediation, arbitration if a valid arbitration agreement exists, or through a competent court. The choice of forum cannot hinder the state's exercise of environmental law enforcement authority. This assertion is important to prevent the forum clause from being misused to override community rights or obligations arising directly from the law.

Thus, the measure of successful reconstruction is not the number of clauses, but rather the integration of the clarity of the submitted material, the legal implementation of activities, traceability of evidence, and redress mechanisms when deviations arise. A simple but achievable and verifiable formulation often provides more certainty than a lengthy list of obligations without accountability and verification tools. This principle also places environmental interests as both a boundary and a goal in designing commercial agreements.

Legal certainty in a non-B3 industrial waste management cooperation agreement cannot be measured solely by the existence of a signed document. The agreement is indeed legally binding through Article 1338 of the Civil Code, as long as it meets the requirements for validity as stipulated in Article 1320 of the Civil Code. However, this binding nature only provides meaningful protection if the substance of the agreement allows the parties to understand the performance requirements, the limits of their respective authorities, and the legal consequences of any deviations. In the context of waste management, this certainty also requires that

the implementation of activities comply with applicable environmental regulations. In other words, legal certainty needs to be examined from two interrelated dimensions: the certainty of the contractual relationship and the certainty of fulfilling public legal obligations.

The first dimension requires clarity regarding the object and specifications of the waste, the point of delivery of the material, the price or service fee, the implementation schedule, the party authorized to receive the material, and evidence of achievement. A provision that simply states that the manager is "responsible for all waste received" cannot be considered adequate if it does not explain when receipt is deemed to have occurred and what activities are included in the scope of its responsibility. Such ambiguity can lead to differences in interpretation when a load is rejected, differences in weighing results, or changes in waste characteristics after the production process. Therefore, the agreement should use a specification attachment and a handover report that refer to each other so that performance can be tested against agreed parameters.

The second dimension relates to the position of agreements within the environmental protection and management system. The provisions of Law No. 32 of 2009 and its amendments, Government Regulation No. 22 of 2021, and Ministerial Regulation No. 19 of 2021 must be understood as legal boundaries for the implementation of non-B3 waste management activities according to their type and characteristics. Parties can determine the distribution of commercial risks, but they cannot, through agreement, eliminate obligations directly imposed by statutory regulations. Transferring physical control of waste, for example, does not automatically eliminate responsibility for incorrect information provided prior to delivery or foreclose the rights of injured third parties. This distinction is important to prevent the principle of freedom of contract from being interpreted as the freedom to disregard environmental and community interests.

The fairness of the parties must then be placed within the framework of proportionality. Contractual fairness does not require an equal distribution of benefits or risks, but rather requires a reasonable relationship between obligations, the ability to control activities, the opportunity to obtain information, and the economic benefits received. In Hernoko's (2016) view, the principle of proportionality is crucial for the exchange of rights and obligations in commercial contracts. Its relevance to non-hazardous waste management is evident when producers are required to provide accurate information about the material, while managers are required to carry out activities they actually control within the scope of the contract and legal requirements. Each party also has the right to obtain information and the opportunity to correct any correctable non-conformities without delaying immediate action necessary to prevent environmental hazards.

The principle of proportionality also needs to be reflected in the regulation of the consequences of violations. Administrative delays that do not pose a substantial

risk should not always be subject to the same legal consequences as management deviations that have the potential to cause pollution. Conversely, the regulation of the repair period should not be used as an excuse to allow conditions that pose an imminent threat to persist. Therefore, the distinction between minor, material, and critical violations, as developed in the discussion section, is a contractual design instrument proposed by the author to balance the interests of business continuity with the need to prevent losses. This classification is prescriptive and is not intended to be a classification of sanctions directly stipulated in non-hazardous waste management regulations.

Legal certainty also requires reliable evidence. A recording system, from material identification and weighing to delivery and receipt, to evidence of management results, will help demonstrate the relationship between an activity and the responsible party. In collaborative relationships involving multiple actors, traceability documents serve a broader function than administrative completeness; they serve as a tool to verify whether achievements have been achieved and at what stage deviations occur. This concept aligns with discussions on sustainable supply chain governance, which prioritize oversight mechanisms, information transparency, and coordination between actors as crucial elements of accountability (Klassen, Shafiq, and Johnson, 2023; Nguyen and Zuidwijk, 2025). This literature is used as conceptual reinforcement, not as a source of legal obligations applicable in Indonesia.

From the overall description, legal certainty and fairness between the parties are two inseparable measures. Even the most detailed clauses can create injustice if all risks are transferred without considering the source of the cause and controllability. Conversely, a risk sharing that is considered fair will be ineffective if rights and obligations cannot be proven. Therefore, a legally sound non-B3 waste management agreement must incorporate clarity of performance, proportional risk sharing, oversight mechanisms, and recovery procedures. Protecting the interests of the community and the environment remains a boundary that cannot be overridden by the contractual intentions of the parties.

The novelty of this research lies in the reconstruction of the clauses in a cooperation agreement for non-hazardous industrial waste management by integrating contract law, environmental law, legal certainty, contractual justice, and environmental accountability. The research goes beyond analyzing the validity of the agreement and produces a model clause that can serve as a reference for drafting contracts.

4. Conclusion

Non-hazardous industrial waste management cooperation is subject to contract law and environmental obligations relevant to the activity and material category. Freedom of contract allows for the division of labor, rewards, and commercial

risks, but does not change the waste classification or eliminate public obligations. The point of transfer is an important basis for determining the transfer of physical risk; its impact on other responsibilities must still be assessed according to the applicable source of obligation and basis of liability. Normatively identified points of uncertainty include difficult-to-determine objects, unclear risk separation, evidence of discontinuous implementation, and remedies and terminations that are inappropriate to the nature of the violation. Reconstruction through the K3P links obligations to subjects, measures of fulfillment, evidence, and consequences. This framework provides a more verifiable and proportionate direction for clause drafting, with practical effectiveness still open to testing through empirical research.

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