REPORT OF FINDINGS

KAJIMA CORPORATION

REVIEW OF THE PROJECT DESIGN DOCUMENT BANTAR GEBANG LFG COLLECTION & ENERGY RECOVERY CDM PROJECT

28 FEBRUARY 2005

LLOYD'S REGISTER QUALITY ASSURANCE LIMITED

Draft Validation Protocol
BANTAR GEBANG LFG COLLECTION & ENERGY RECOVERY CDM PROJECT
Based on the CDM-PDD submitted to LRQA on 16 February 2005
(Version 1 - 26 February 2005)

Table 1 Mandatory Requirements for Clean Development Mechanism (CDM) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art.12.2	OK	Table 2, Section E.4.1
2. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof	Kyoto Protocol Art. 12.2, Marrakesh Accords, CDM Modalities §40a	CLA & OBS	Table 2, Section A.3 Please see relevant sections of Table 2 below.
		-	Confirmation by the host Party has not been presented yet.
	PDD A.3., D.5. and Annex 1	CLA 1	A host country participant to the project activity is to be identified. One Japanese company is identified in Section D.5 and in Annex 1 but relations of this company to the proposed project activity is not clearly described.
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art.12.2.	OK	Table 2, Section E.4.1
4. The project shall have the written approval of voluntary participation from the designated national authorities of each party involved	Kyoto Protocol Art. 12.5a, Marrakesh Accords, CDM Modalities §40a	-	Written approval of voluntary participation from the Parties has not been presented yet.

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
5. The emission reductions shall be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	CLA & OBS	Table 2, Section E Please see relevant sections of Table 2 below.
6. Reduction in GHG emissions shall be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity	Kyoto Protocol Art. 12.5c, Marrakesh Accords, CDM Modalities §43	CLA & OBS	Table 2, Section B.2 Please see relevant sections of Table 2 below.
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords	-	It is stated in PDD that no ODA funding will be provided. This shall be further confirmed with the detail financial plan, etc.
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakech Accords, CDM Modalities §29	CLA 2	Name of Indonesian DNA has not been presented on UNFCCC website.
9. The host country shall be a Party to the Kyoto Protocol	Marrakech Accords, CDM Modalities §30	OK	Indonesia has ratified the Kyoto Protocol on 3 December 2004.
10. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received	Marrakech Accords, CDM Modalities §37b	CLA & OBS	Table 2, Section G Please see relevant sections of Table 2 below.
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	Marrakech Accords, CDM Modalities §37c	CLA & OBS	Table 2, Section F Please see relevant sections of Table 2 below.

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
12. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel	Marrakech Accords, CDM Modalities §37e	CLA	Table 2, Section B.1.1 and D.1.1 The baseline and monitoring methodologies are based on the methodologies already approved by the CDM EB while clarification as described in the Table 2 below should be addressed.
13. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP	Marrakech Accords, CDM Modalities §37f	CAR, CLA & OBS	Table 2, Section D Please see relevant sections of Table 2 below.
14. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	-	Public comment needs to be invited in accordance with the CDM rules.
15. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, CDM Modalities, §45c,d	CLA & OBS	Table 2, Section B.2 Please see relevant sections of Table 2 below.
16. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, CDM Modalities, §47	OK	Table 2, Section B.2
17. The project design document shall be in conformance with the UNFCCC CDM-PDD format	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	OK	

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of Project Activity *The project design is assessed.*					
A.1. Project Boundaries *Project Boundaries are the limits and borders defining the GHG emission reduction project.*					
A.1.1. Are the project's spatial (geographical) boundaries clearly defined?	PDD A.2. & B.4.	DR	The project's spatial boundaries are appropriately defined while it is requested to confirm the boundary of the project activity seeking registration as CDM is limited in Zone IV and V of the Bantar Gebang landfill site.	CLA 3	-
A.1.2. Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly defined?	PDD A.4. 3.	DR	Definition of project's system boundary is clear. The project includes transmission line to the grid in its scope. The distance of transmission line is to be taken into account in the estimate of project costs as well as loss of energy.	OK OBS 1	-

* MoV = Means of Verification, DR = Document Review

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.2. Technology to be employed *Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.*					
A.2.1. Does the project design engineering reflect current good practices?	PDD A.4. 3.	DR	The project is proposing the first landfill gas collection and energy recovery project in Indonesia on commercial basis. But the engineering design specification to be employed in the project, e.g. gas collection systems and mechanisms, flare, power generation and transmission equipments should be explained more clearly to present the advancement.	CLA 4	-
A.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD A.4. 3.	DR	For transparency, the project participants are encouraged to provide brief explanation of the “newly developed method” for optimization of gas recovery wells arrangement in the disposed waste. How to transfer the environmentally safe and sound technology to the host Party is not clearly explained. It will be explained linked with the expected environmental impact stated in Section F.	CLA 5 CLA 6	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	PDD A.4.4.	DR	The project should assure safety system and procedures for control of gas valves. For transparency, project participants are requested to present brief explanation of the "sample tests" conducted to determine the gas volume. Project participants are requested to describe in A.4.4. the estimate of anticipated total emission reductions.	OBS 2 CLA 7 OBS 3	
A.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD A.4.3	DR	Project participants are requested to clearly state technological advancement of the ones employed in the project/	CLA 8	-
A.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD D.4	DR	Further information such as experience and skills required for operation, maintenance, monitoring and reporting personnel should be presented.	CLA 9	-
A.2.5. Does the project make provisions for meeting training and maintenance needs?	PDD D.4	DR	Plans of staffs training are stated.	OK	-
A.3. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*					
A.3.1. Is the project in line with relevant legislation and plans in the host country?	PDD A.4.4.	DR	Development policy/plan of Government of Indonesia should be presented so that the background of assumptions made by the	OBS 4	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			project participants for baseline scenario can be confirmed.		
A.3.2. Is the project in line with host-country specific CDM requirements?	PDD A.4. 4	DR	Detail requirements of host country for approval of CDM project and how the proposed project will satisfy the requirements should be clearly explained.	CLA 10	-
A.3.3. Is the project in line with sustainable development policies of the host country?	PDD A.4. 4	DR	Detail requirements of host country's sustainable development policies and how the proposed project will satisfy the requirements should be clearly explained.	CLA 11	-
A.3.4. Will the project create other environmental or social benefits than GHG emission reductions?	PDD A.2.	DR	The project participant is requested to describe under Section A.2. the view of the project participants of the contribution of the project activity to sustainable development. The relation of project activity and the anticipated effect on the sustainable development is better to be clearly explained.	OBS 5	-
B. Project Baseline *The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.*					
B.1. Baseline Methodology *It is assessed whether the project applies an appropriate baseline methodology.*					
B.1.1. Is the baseline methodology previously	PDD	DR	Yes, project uses the approved	OK	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
approved by the CDM Methodology Panel?	B.1.1.		methodology ACM0001 and AMS I.D.		
B.1.2. Is the baseline methodology the one deemed most applicable for this project and is the appropriateness justified?	PDD B.1.1., B.3	DR	It should present clear explanation of applying AMS I.D. with relevant justification for the electricity generation component. It refers to the generation mix of Indonesia in 2000 with indication of emission factors in Japan undated. But project participants should provide respective justification to employ the reference as appropriate. It is not clear that the referenced information reflect the latest data of Java-Bali grid as applicable to the proposed project.	OBS 6	-
The below questions only apply when the validator is reviewing the baseline methodology prior to submission to the CDM EB (Two Steps Approach):					
B.1.3. Is the discussion and selection of the baseline methodology transparent?					
B.1.4. Is the proposed baseline methodology in line with one of the approaches outlined in Paragraph 48 of the Marrakech Accords?					
B.1.5. Does the baseline methodology specify data sources and assumptions?					
B.1.6. Does the baseline methodology sufficiently describe the underlying rationale for algorithm/formulae (e.g. marginal vs. average, etc.)					
B.1.7. Does the baseline methodology specify types of variables used (e.g. fuels used, fuel					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
consumption rates, etc)?					
B.1.8. Does the baseline methodology specify the spatial level of data (local, regional, national)?					
B.1.9. Does the baseline methodology specify an approach to define the additionality of the project?					
B.2. Baseline Determination *The choice of baseline will be validated with focus on whether the baseline is a likely scenario, whether the project itself is not a likely baseline scenario, and whether the baseline is complete and transparent.*					
B.2.1. Is the application of the methodology and the discussion and determination of the chosen baseline transparent?	PDD B.2.	DR	Besides key methodological steps in determining the baseline scenario, B.2. is requesting explanation of the basic assumptions of the baseline methodology and the key information and data used to determine the baseline scenario (variables, parameters, data sources etc.) in table form. The reason of composting system unable to be an alternative is not transparently explained.	OBS 7 OBS 8	-
B.2.2. Has the baseline been determined using conservative assumptions where possible?	PDD Annex 31.	DR	The scenario with soil covering as applied to Bantar Gebang Zones IV and V seems to be more conservative than the other landfill sites in Indonesia with no special treatment, but this should be technically explained. In the technical explanation, for example, it is to be clarified if the assumption of 50	CLA 12	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			degrees for temperature inside landfill is appropriate and conservative.		
B.2.3. Has the baseline been established on a project-specific basis?	PDD B.1. 1.	DR	It is not clearly explained how the project participants judged the capacity of electricity generated by the project is less than 15MW as the base of choice of baseline methodology for electricity generation component.	CLA 13	-
B.2.4. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	PDD G.2	DR	PLN's comment prepared in Section G., mentions purchasing of generated electricity as "a small renewable energy resource". Project participant should explain whether any incentive program will be applied to the project and if yes, confirm that the incentive has been taken into account for the barrier analysis and investment analysis.	CLA 14	-
B.2.5. Is the baseline determination compatible with the available data?	PDD B.2.	DR	Please see B.2.7 below.	-	-
B.2.6. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD B.2.	DR	Please see B.2.7 below.	-	-
B.2.7. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario (e.g. through (a) a flow-chart or series of questions that lead to a narrowing of potential baseline options, (b) a qualitative or quantitative assessment of different potential options and an indication of why the non-project option is more likely, (c) a qualitative or quantitative	PDD B.2.	DR	In the baseline approach, Sub-step 1a is missing while the issue is stated in Step 3 instead. In Step 3, reason of the pilot project unrealized should be explained based on the investment barrier, technological barrier, barrier due to the prevailing practice, etc. Estimated costs for Alternative 2 should be	OBS 9	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
assessment of one or more barriers facing the proposed project activity or (d) an indication that the project type is not common practice in the proposed area of implementation, and not required by a Party's legislation/regulations)?			presented in line with request of Sub-step 2b.	CLA 15	
			Sub-step 2c. is not applicable to Alternative 2 as it takes option I.	OBS 10	
			In Sub-step 2c, comparison of financial indicators of Alternative 1 with the selected bench mark should be transparently addressed. Sub-step 2d Sensitivity analysis is also applicable.	OBS 11	
			In Step 5, how the CDM registration can provide benefit and incentive to the project should be clearly explained.	OBS 12	
	PDD B.3.	DR	In B.3., explanation of how and why this project is additional/not the baseline scenario with describing the baseline scenario, project scenario, and an analysis showing why the emissions in the baseline scenario would likely exceed emissions in the project scenario.	OBS 13	
			Emission factor for electricity displaced should be determined in accordance with the selected methodology for electricity generation component as defined in footnote 4 of ACM0001.	OBS 14	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			"*and ETy is measured in TeraJoules (TJ)*" in 6th line from the top and "*or fuel combustion for transport of generated heat to the consumer locations*" in 4th line from the bottom of Page 15 are not necessary as there is no steam utilization in the project.	OBS 15	
B.2.8. Have the major risks to the baseline been identified?	PDD B.2	DR	Risk of Baseline is not stated. It should be reviewed.	CLA 16	-
B.2.9. Is all literature and sources clearly referenced?	PDD Annex 31.	DR	Source of calculation method used for gas generation potential should be clearly referenced. Some references, for example, the equation in page 38 and "Table 1 Annual CH4 captured" in page 39 are not clearly mentioned.	CLA 17	-
C. Duration of the Project/ Crediting Period *It is assessed whether the temporary boundaries of the project are clearly defined.*					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD C2.2.1	DR	Statement of PDD is clear.	OK	-
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD C.2.	DR	If the project chooses fixed crediting period of 10 years, it cannot be altered to be renewable crediting periods when extension of project activity is decided later stage. In case the gas recovery systems will be relocated to the rest of landfill zones in the future, such project needs to be registered as the separate project.	OBS 16	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D. Monitoring Plan *The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed ((Blue text contains requirements to be assessed for optional review of monitoring methodology prior to submission and approval by CDM EB).*					
D.1. Monitoring Methodology *It is assessed whether the project applies an appropriate baseline methodology.*					
D.1.1. Is the monitoring methodology previously approved by the CDM Methodology Panel?	PDD D.2. 2.	DR	The project uses the approved methodology ACM0001, while it is not clearly stated that AMS I.D. is used for the electricity generation component. Project participants should justify the use of AMS I.D. with appropriate estimation of expected generation output.	CLA 18	-
D.1.2. Is the monitoring methodology applicable for this project and is the appropriateness justified?	PDD D.2. 2.	DR	Ditto	-	-
D.1.3. Does the monitoring methodology reflect good monitoring and reporting practices?	PDD D.2. 2.	DR	Monitoring techniques to be employed by the project, e.g. design specification of methane analyser (page 46) should be further explained.	CLA 19	-
D.1.4. Is the discussion and selection of the monitoring methodology transparent?	PDD D.2. 2.	DR	Discussion and selection are described in a transparent manner.	OK	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
The below questions only apply when the validator is reviewing the monitoring methodology prior to submission to the CDM EB (Two Steps Approach):					
D.1.5. Does the monitoring methodology provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?					
D.1.6. Is the selected monitoring methodology supported by the monitored and recorded data?					
D.1.7. Are the monitoring provisions in the monitoring methodology consistent with the project boundaries in the baseline study?					
D.1.8. Have any needs for monitoring outside the project boundaries been evaluated and if so, included as applicable?					
D.1.9. Does the monitoring methodology allow for conservative, transparent, accurate and complete calculation of the ex post GHG emissions?					
D.1.10. Are formulas used for calculations stated and calculations incorporated or referenced?					
D.1.11. Do the methodologies for calculating emission reductions comply with existing good practice?					
D.1.12. Is the monitoring methodology clear and user friendly?					
D.1.13. Does the methodology mitigate possible monitoring errors or uncertainties addressed?					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.2. Monitoring of Project Emissions *It is established whether the monitoring plan provides for reliable and complete project emission data over time.*					
D.2.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?	PDD D.2. 2.1., D.2. 2.1.	DR	"For how long is archived data kept?" should be included in accordance with the selected methodology (though such column is not provided in CDM-PDD template). Project participants should clarify whether the monitoring of regulatory change relating to the proposed project should be added in the same manner as the approved methodology or not. If no, the reason should be justified.	CAR 1 CLA 18	-
D.2.2. Are the choices of project GHG indicators reasonable?	PDD D.2	DR	Choice of GHG indicators is reasonable.	OK	-
D.2.3. Will it be possible to monitor / measure the specified project GHG indicators?	PDD D.2. 2.	DR	It is explained that the data for electricity displaced *except* emission factor will be obtained from the latest annual report of PLN but the project participants should clarify what data can be sourced from the annual report and whether it can be obtained in timely manner. Project participant should also clarify from where he will source the data to determine emission factors.	CLA 19	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Location of electricity meter to be controlled by PLN and the data is used to determine the quantity of electricity displaced should be confirmed in line with the project boundary. Project participants should clearly describe the formula with any reference to determine methane density from the monitored data.	OBS 17 CLA 20	
D.2.4. Will the indicators give opportunity for real measurements of achieved emission reductions?	PDD D.2. 2.	DR	Please see D2.1 and 2.3 above.	-	-
D.2.5. Will the indicators enable comparison of project data and performance over time?	PDD D.2. 2.1.	DR	It follows the approved methodology but how to actually calculate the flare efficiency from the measured indicators is to be confirmed.	CLA 21	-
D.3. Monitoring of Leakage *It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.*					
D.3.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	PDD A.4. 3., B.4., D.2. 2.1	DR	The approved methodology applied does not require leakage effects to be accounted, however, project participants should explain what is included in “in-house energy consumption” and whether the project will use electric power generated outside of the project boundary or any other fuel than	CLA 22	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			electricity generated with the recovered landfill gas. Change in the grid conditions is also concerned.		
D.3.2. Have relevant indicators for GHG leakage been included?	PDD A.4.3., B.4., D.2.2.1	DR	Ditto	-	-
D.3.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	PDD A.4.3., B.4., D.2.2.1	DR	Ditto	-	-
D.3.4. Will it be possible to monitor the specified GHG leakage indicators?	PDD A.4.3., B.4., D.2.2.1	DR	Ditto	-	-
D.4. Monitoring of Baseline Emissions *It is established whether the monitoring plan provides for reliable and complete project emission data over time.*					
D.4.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining baseline emissions	PDD D2.1	DR	In this project, emission reduction is calculated directly and baseline emission is not monitored.	N/A	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
during the crediting period?					
D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	PDD D2.1	DR	Ditto	N/A	-
D.4.3. Will it be possible to monitor the specified baseline indicators?	PDD D2.1	DR	Ditto	N/A	-
D.5. Monitoring of Sustainable Development Indicators/ Environmental Impacts *It is checked that choices of indicators are reasonable and complete to monitor sustainable performance over time.*					
D.5.1. Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD D	DR	Project participant should concern and state monitoring of environmental, social and economic impacts so that conformance of the project to respective national policy and legislation is assured throughout the crediting period.	CLA 23	-
D.5.2. Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD D	DR	Ditto	-	-
D.5.3. Will it be possible to monitor the specified sustainable development indicators?	PDD D	DR	Ditto	-	-
D.5.4. Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD D	DR	Ditto	-	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.6. Project Management Planning *It is checked that project implementation is properly prepared for and that critical arrangements are addressed.*					
D.6.1. Is the authority and responsibility of project management clearly described?	PDD D.3	DR	The column "Are QA/QC procedures planned for these data?" as shown in the selected methodology is not provided in the section (though such column is not provided in CDM-PDD template).	OBS 18	-
D.6.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD D.3	DR	Procedures are described but information is not sufficiently provided. It should be further reviewed.	OBS 19	-
D.6.3. Are procedures identified for training of monitoring personnel?	PDD D.4	DR	Ditto	-	-
D.6.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD D.4	DR	Ditto	-	-
D.6.5. Are procedures identified for calibration of monitoring equipment?	PDD D.4	DR	Ditto	-	-
D.6.6. Are procedures identified for maintenance of monitoring equipment and installations?	PDD D.4	DR	Ditto	-	-
D.6.7. Are procedures identified for monitoring, measurements and reporting?	PDD D.4	DR	Procedures are stated appropriately.	OK	-
D.6.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD D.4	DR	Procedures are described but information is not sufficiently provided. It should be further reviewed.	OBS 19	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.6.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD D.4	DR	Ditto	-	-
D.6.10. Are procedures identified for review of reported results/data?	PDD D.4	DR	Further information should be provided for the procedures.	CLA 24	-
D.6.11. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD D.4	DR	Ditto	-	-
D.6.12. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD D.4	DR	Ditto	-	-
D.6.13. Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD D.4	DR	Ditto	-	-
E. Calculation of GHG Emissions by Source *It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.*					
E.1. Predicted Project GHG Emissions *The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.*					
E.1.1. Are all aspects related to direct and indirect GHG emissions captured in the project design?	PDD B.4	DR	This is described appropriately.	OK	-
E.1.2. Are the GHG calculations documented in a complete and transparent manner?	PDD E.1.	DR	The section is better to be re-organized in accordance with the Guidelines for	OBS 20	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	to E. 5		completing CDM-PDD. The direct estimation of the emission reductions described under E. 5. should be stated in E.1. as alternative to estimation of the project emissions, while E.5. should be "not applicable" in this case.		
			The calculations of emission reductions currently described under E.5. do not conform to those stated in D.2.2.2. The data source and formulas for generator heat rate, conversion factors of GJ/m^3CH_4 and tCH_4/m^3CH_4 should be explained. The calculation of electricity does not deduct the consumption of project activity. In the last formula, is it correct to multiply ($LFG_{project,y}$ – $LFG_{reg,y}$) by *D_CH4* instead of W_CH_4?	CLA 25	
	PDD Annex 3 3. and 4.	DR	Estimation of "Annual CH_4 captured" in Table-1 should be explained with data source, formula and reference as applicable.	CLA 26	
			Does the estimated CO_2 reduction in Table-2 include the reduction by displacing grid electricity as explained therein.	CLA 27	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Relation between the estimated CH_4 captured volume and generation capacity/output is not clearly stated.	CLA 28	
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	PDD Annex 3 Reference	DR	Project participant should justify that the reference data used are based on conservative assumption, e.g. electricity use for project operation of 5%, power plant availability of 90%, engine-generator efficiency of 25%, etc.	CLA 29	-
E.1.4. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	PDD B.3	DR	Note 2 of ACM0001 mentions possible future revision of the methodology to incorporate the impact of oxidation of biogas in the calculation. The project participant should take this issue into consideration.	OBS 21	-
E.1.5. Have all relevant greenhouse gases and source categories listed in Kyoto Protocol Annex A been evaluated?	PDD B.4	DR	It is considered better to provide clear explanation of how project participant has reached conclusion that the emission of N_2O from LFG combustion is negligible.	OBS 22	-
E.2. Leakage *It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.*					
E.2.1. Are potential leakage effects beyond the chosen project boundaries properly identified?	PDD E.2	DR	Please refer to Section D.3. above.	-	-
E.2.2. Have these leakage effects been properly	PDD	DR	Ditto	-	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
accounted for in calculations?	E.2				
E.2.3. Does the methodology for calculating leakage comply with existing good practice?	PDD E.2	DR	Ditto	-	-
E.2.4. Are the calculations documented in a complete and transparent manner?	PDD E.2	DR	Ditto	-	-
E.2.5. Have conservative assumptions been used when calculating leakage?	PDD E.2	DR	Ditto	-	-
E.2.6. Are uncertainties in the leakage estimates properly addressed?	PDD E.2	DR	Ditto	-	-
E.3. Baseline Emissions *The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.*					
E.3.1. Have the most relevant and likely operational characteristics and baseline indicators been chosen as reference for baseline emissions?	PDD E.6	DR	In this project, emission reduction is to be calculated directly and baseline emission is not used to calculate it. But project participant estimated baseline emission to show that the GHG emission is fewer in the project than the baseline case.	N/A	-
E.3.2. Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for baseline emissions?	PDD E.6	DR	Ditto	-	-
E.3.3. Are the GHG calculations documented in a complete and transparent manner?	PDD E.6	DR	Ditto	-	-
E.3.4. Have conservative assumptions been used when calculating baseline emissions?	PDD E.6	DR	Ditto	-	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
E.3.5. Are uncertainties in the GHG emission estimates properly addressed in the documentation?	PDD E.6	DR	Ditto	-	-
E.3.6. Have the project baseline(s) and the project emissions been determined using the same appropriate methodology and conservative assumptions?	PDD E.6	DR	Ditto	-	-
E.4. Emission Reductions Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.					
E.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	PDD E.6	DR	Estimation provided shows that the project will contribute to GHG emission reduction.	OK	-
F. Environmental Impacts *Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.*					
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD F.1	DR	Project participant should provide explanation of generator capacity as mentioned in above D.1.1 to prove that the project is not required with environmental impacts assessment under the host country's legislation. Project participants should explain the requirements of "detailed establishment plan (PAT)" and confirm if such	CLA 30 CLA 31	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			documentation includes analysis of environmental impacts and if the document is necessary at applying for host country's approval of CDM project.		
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD F.2	DR	Documentation of clear definition or declaration by the host Party is to be presented for further assessment.	OBS 23	-
F.1.3. Will the project create any adverse environmental effects?	PDD F.1	DR	The project activity creates noise by gas engine generators and air compressor operation. It is not clearly stated if enclosure of the facilities is necessary to meet the local regulations in the proposed project.	CLA 32	-
F.1.4. Are transboundary environmental impacts considered in the analysis?	PDD F.1	DR	There are no detail information on the Low NOx technology and noise protection to be applied to this project. They should be reviewed to justify transboundary environmental impact.	CLA 33	-
F.1.5. Have identified environmental impacts been addressed in the project design?	PDD F.1	DR	Please see F.1.3. and F.1.4. above.	-	-
F.1.6. Does the project comply with environmental legislation in the host country?	PDD F.1	DR	Please see F.1.3. and F.1.4. above.	-	-
G. Stakeholder Comments *The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.*					
G.1.1. Have relevant stakeholders been consulted?	PDD	DR	Project participant is to confirm whether "the	CLA 34	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	G.3		residents of Bantar Gebang site" includes scavengers or any other party who has positive or negative economical interest with the project.		
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	PDD G.1	DR	Project participant is to confirm if the interviewing of the identified organizations meets the local regulations and current good practices. The consultation meeting with the local community planned in March 2005 should be documented and incorporated in the project design document.	CLA 35	-
G.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD G.1	DR	Please see G.1.2. above.	-	-
G.1.4. Is a summary of the stakeholder comments received provided?	PDD G.2	DR	To be documented incorporating G.1.2. above.	OBS 24	-
G.1.5. Has due account been taken of any stakeholder comments received?	PDD G.3	DR	Ditto	-	-