

**PUBLIC COMPANY MAZEIKIU NAFTA
GENERAL DIRECTOR**

**ORDER
REGARDING THE APPROVAL OF PUBLIC COMPANY MAZEIKIU NAFTA
AUTOMATED CONTROL SYSTEM
ACCEPTANCE TESTING REGULATIONS**

6 March , 2009 No. TV1(1.2-1)/54
Juodeikiai, Mazeikiai distr.

I hereby:

1. A p p r o v e Public Company Mazeikiu Nafta Automated Control System Acceptance Testing Regulations (attached hereto; hereinafter - Regulations).
2. O b l i g a t e Public Company Mazeikiu Nafta (hereinafter - Company) Director of Maintenance and Director of Capital Projects Realization to introduce the Regulations approved by the present Order to relevant heads of subordinate divisions/departments/units and to senior specialists, who shall respectively introduce them to their subordinates against acknowledgement.
3. A s s i g n the Company's Executive Office to familiarize with the present Order the employees of the Company as per List A approved by Order No. TV1(1.2-1)/231 issued by the General Director on 14 October 2008 as well as Director of Maintenance, Director of Capital Projects Realization.

General Director

Marek Mroczkowski

AGREED WITH

Deputy General Director for Plant Engineering

Waldemar Lota

Deputy General Director for Production

Albertas Gimbutas

Director of Legal Department

Giedrius Raudys

2009-01-09

Antanas Rugys, tel. 2634, e-mail: antanas.rugys@nafta.lt

APPROVED BY
Public Company Mazeikiu Nafta
General Director
Order No TV1(1.2-1)/54 of 6 March, 2009

PUBLIC COMPANY MAZEIKIU NAFTA

AUTOMATED CONTROL SYSTEMS

ACCEPTANCE TESTING REGULATIONS

1. GENERAL PROVISIONS. PURPOSE AND SCOPE

1.1. Public Company Mazeikiu Nafta Automatic Control Systems Factory Acceptance Tests Execution Regulations (hereinafter – Regulations) has been developed according to Lithuanian standard LST EN 62381:2007 *Automation Systems in the Process Industry. Factory Acceptance Tests, Site Acceptance Tests, and Site Integration Tests (IEC 62381:2006)* (designation of European standard adopted as Lithuanian standard - EN 62381:2007), issued by the Lithuanian Standards Board under the Ministry of Environment of the Republic of Lithuania as of 17 September 2007.

1.2. Purpose of the Regulations:

- to determine functions, rights and responsibilities of MN* employees performing ACS* acceptance tests (hereinafter - acceptance tests) or otherwise related to these tests;
- to establish the procedure of acceptance test performance;
- to establish the contents of the acceptance test documents and the procedure of their development.

1.3. The requirements of the procedure are mandatory for MN employees, whose activity is pertinent to the acceptance test performance or other work related to the acceptance testing.

1.4. While performing the work related to the acceptance testing, employees must follow and comply with the requirements set forth in normative legislation and the respective MN documentation regulating occupational safety and health and electrical equipment installation and operation.

1.5. If Contractor* arranging acceptance testing fails to organize the work in such a way that safety and health of the participating MN employees is not assured or certain conditions do not allow to perform it in a safe manner, the work have to be suspended until the Contractor ensures the safe work conditions.

* The abbreviations and definitions used are indicated in Paragraph 2 of the present Procedure.

2. DEFINITIONS AND ABBREVIATIONS USED IN THE PROCEDURES

2.1. Abbreviations used in the current Regulations:

- **MN** – Public Company Mazeikiu Nafta;
- **CSG** – MN Control Systems Group of Instrumentation and Process Control Systems Department;
- **PLC** – Programmable logic controller;
- **DCS** – Distributed control system;
- **ESD** – Emergency shut-down system;
- **ACS** – Automated control system – a DCS or PLC based system designed for process unit (process, equipment) control and operation;
- **SW** – Software;
- **HW** – Hardware;
- **P&ID** – Piping and instrument diagram;
- **FAT** – Factory acceptance testing;
- **SAT** – Site acceptance testing;
- **SIT** – Site integration testing;
- **UPS** – uninterruptible power supply.

2.2. Main definitions used in the current Regulations:

- **Contractor** – a person, with whom MN has concluded a contract on the execution of work pertinent to development and installation of control system;
- **CS Manager** – MN Control Systems Manager of Control Systems Group of Instrumentation and Process Control Department of Plant Engineering Division;
- **Project Manager** – a duly appointed MN employee authorized to perform project manager's functions related to the specific project. Usually it is a Project Manager of Plant Engineering Division.
- **Technical Task** – a duly developed document (part of document) indicating the technical requirements process unit (process, equipment) ACS has to be compliant with. Key MN design technical requirements pertinent to ACS, other special provisions, if any, shall be also included in the Technical Task.
- **Project documents** – technical documents, where design solutions are set forth for ACS development and operation.

3. ACCEPTANCE TESTING OBJECTIVES. GENERAL PROVISIONS

3.1. Acceptance testing objective:

– to check if the delivered ACS is compliant with its purpose, i.e. check if ACS components, functions and operational properties meet the Technical Task requirements, conform to the design documents, operational (usage) documents and contract terms and conditions; to identify and eliminate the deficiencies ACS operation and documentation developed;

– to determine if ACS is acceptable for the operation.

3.2. Acceptance testing consists of three stages:

3.2.1. Acceptance testing performed at Contractor's site (control system manufacturer/vendor), unless established otherwise by the contract with Contractor, after the manufacturing of ACS (FAT);

3.2.2. Acceptance testing performed at the respective MN process unit (operation site) after the delivery and installation of ACS (SAT);

3.2.3. Integration testing performed at the respective MN process unit (operation site) after the delivery and installation of ACS (SIT);

3.3. All acceptance tests shall be performed in accordance with the schedule (work and time) developed in advance. The author of the schedule (work and time) shall be specified in the contract or in the Technical Task. Normally this document is developed by the Contractor. The schedule (work and time) is to be coordinated with CS Manager and Project Manager.

3.4. Acceptance testing shall be performed in compliance with the inspection procedures (methodologies). The author of the inspection procedures (methodologies) shall be specified in the contract or in the Technical Task. Normally this document is developed by the Contractor in coordination with CS Manager and Project Manager.

4. ACCEPTANCE TESTING PARTICIPANTS. QUALIFICATION REQUIREMENTS

4.1. The following employees shall participate in acceptance testing:

– a responsible employee of the process unit under construction or revamp, duly appointed to the respective project execution group as per Project Manager's decision;

- CSG employees (at least two persons, unless established otherwise);

– other MN employees, duly appointed to the respective project execution group as per Project Manager's decision.

4.2. 4.1. An employee of the process unit under construction or revamp, referred to in Item 4.1, shall have good understanding of the operation process of the unit and its equipment, process unit operation and equipment control (start-up, shut-down, control, interlock protection), process unit P&ID.

4.3. CSG employees shall have at least 2 years experience in developing/applying similar DCS and/or ESD and/or PLC systems and understand these systems; be familiar with the

requirements of standard LST EN 62381 and of the current Regulations as well as control system design and programming requirements applicable in MN.

5. FUNCTIONS, RIGHTS AND RESPONSIBILITIES OF MN EMPLOYEES INVOLVED IN ACCEPTANCE TESTING

5.1. Chief Instrumentation and Process Control Engineer:

– shall appoint, by means of an administrative document, CSG employees, who are to participate in acceptance testing (FAT, SAT, SIT) and are responsible for signing the respective documents pertinent to these tests.

5.2. CS Manager:

5.2.1. Shall perform the following functions:

– check if the design data submitted by the Contractor is compliant with MN and the respective standard requirements;

– perform general control and supervision of acceptance testing (FAT, SAT and SIT);

– coordinate acceptance testing (FAT, SAT and SIT) schedule (work and time);

– nominate (recommend) candidates from CSG to participate in acceptance testing (FAT, SAT, SIT) and sign the respective documents pertinent to the acceptance tests;

– provide all information to his/her manager and the Project Manager regarding the progress of acceptance testing, work performed, problems occurred and the solutions proposed.

5.2.2. Shall be responsible for:

– organization of good-quality work execution in due time;

– nomination of his/her subordinates of adequate qualification for the performance of acceptance testing (FAT, SAT and SIT);

– informing his/her direct manager and the Project Manager regarding the problems pertinent to the ACS acceptance testing.

5.2.3. Shall have a right to:

– make a decision regarding the acceptance of ACS for initial operation by signing the final ACS Acceptance Statement (upon the completion of all acceptance tests).

5.3. CSG Personnel:

5.3.1. Shall perform the following functions:

– participate, watch the work performed by the Contractor during the acceptance testing (FAT, SAT and SIT);

– confirm respective test results by signing a respective Test Report;

– develop, fill in, and revise the lists of deficiencies identified in the course of acceptance testing;

– inform CS Manager regarding the progress of acceptance testing (FAT, SAT and SIT), work performed, problems occurred and the solutions proposed.

5.3.2. Shall be responsible for:

– quality control of the work performed in the course of acceptance testing (FAT, SAT, SIT) and the control of ACS compliance with the Technical Task and the design documentation;

– execution of acceptance testing (FAT, SAT and SIT) in due time;

– timely informing the CS Manager about the problems pertinent to the acceptance testing (FAT, SAT and SIT);

– compliance with the occupational safety requirements.

5.3.3. Shall have a right to:

– lodge claims to Contractors regarding all the deficiencies, defects and failures occurred in the course of acceptance testing (FAT, SAT and SIT);

– sign documents and statements submitted by the Contractor pertinent to acceptance tests (FAT, SAT, SIT) as well as other documents as per current Procedure.

– make a decision regarding the acceptance or non-acceptance of the completion of acceptance testing (FAT, SAT, SIT) and performing of additional acceptance testing (FAT, SAT, SIT) by signing a respective Test Report. The decision shall be made and the Report signed by CSG employee assigned to be responsible to sign this document by Chief Instrumentation and Process Control Engineer.

5.4. Project Manager shall perform the following functions:

– coordinate acceptance testing (FAT, SAT and SIT) schedules (work and time) with the Contractor;

– coordinate actions related to acceptance testing between MN divisions and with the Contractor;

– decide which MN employees, duly appointed to the respective project execution group, have to participate in acceptance testing (FAT, SAT and SIT);

– submit reports to the respective managers about the progress of acceptance testing (FAT, SAT and SIT).

5.5. MN employees, appointed to participate in acceptance testing (FAT, SAT and SIT) shall perform the following functions:

– participate in acceptance testing (FAT, SAT and SIT) and, within their competence, have a right to make a statement if ACS is compliant with the requirements of the Technical Task and the design documentation;

– submit information to the respective managers in a timely manner about the progress of acceptance testing (FAT, SAT and SIT) and the problems pertinent to the acceptance testing.

5.6. Upon signing the documents referred to in the current Procedure and/or confirming by signature certain records (data) included in the documents, MN personnel shall be responsible for the due execution of the respective documents and/or records and the correctness of the information presented therein, also for the timely submission of the documents to the Project Manager and Chief Instrumentation and Process Control Engineer.

6. ACCEPTANCE TESTING

6.1. GENERAL REQUIREMENTS. DOCUMENT EXECUTION

6.1.1. MN personnel appointed as per current Procedure must perform acceptance testing in due terms and following the due procedure, i.e. inspect and accept the work performed by Contractor (its result).

The acceptance of the works performed during the acceptance testing shall be documented by issuing a statement (or other similar document), by which an employee, appointed by MN, approves the acceptance of works with or without reservations. This statement shall also be signed by an authorized Contractor's representative, thus confirming the transfer of work.

6.1.2. Inspections performed during the acceptance testing and their results shall be documented by means of the respective documents: statements, reports, lists as per forms submitted by Contractor and agreed by MN (CS Manager).

Non-filled columns or rows in the statements shall be stricken by a line or otherwise.

6.1.3. If the procedure of development, submission and documentation of inspection procedures (methodologies) is not directly specified in the Technical Task or in the Contract, the inspection performed, and the results obtained have to be documented following the provisions of the current Procedure.

6.1.4. The list of design and other documents (but not limited to) required to perform acceptance testing:

- a) ACS operating (user's) manual;
- b) Design documentation, including the following:
 - piping and instrument diagrams, i.e. functional automation diagrams;
 - process unit specifications;
 - technical drawings (lay-out, loop, single-line el. diagrams, installation and other);
 - software description, licenses and other;
 - process unit operating manuals;
 - interlock scheme description;
 - safety investigation reports;

- process unit certificates of conformity;
- a list of DCS input signals: AI (analogue) shall include the following information: title of measuring parameter, measurement units, limits of measuring, alarm and warning settings, measuring accuracy, type of signal; DI - title, purpose of signal (explanation of logical level “1 / 0”);
- a list of DCS output signals, indicating title of signal, units and limits of measurement;
- lists of ESD inlet/outlet signals (similar to lists of DCS inlet/outlet signals);
- lists of PLC inlet/outlet signals (similar to lists of PVC inlet/outlet signals);
- lists of DCS/PLC/ESD interface signals (variable);
- Faceplate display views with descriptions;
- list of alarm notices: warning and emergency alarm, notices to the user (technological notices), system notices;
- DCS algorithm diagrams (Function Block Diagrams, Sequential Function Chart, Structural Text) and complex control loop narratives;
- ESD algorithm diagrams (Ladder Logic Diagrams, Function Block Diagrams, Cause & Effect Matrix);
- description of ACS configuration: communication parameters, operating system, data base and other specific settings related to the project to be executed.

c) Other:

- a list of special tools and equipment;
- a list of spare parts.

6.1.5. If the above documents are indicated as appendices to the respective documents, by means of which the results of respective inspection are documented, the appendices have to be signed by the Contractor and CSG employees, who have performed the inspection.

6.1.6. Reports and punch lists have to be signed by Contractor employees, who have performed the inspection, and the responsible CSG employees, who participated in the inspection and/or performed the inspection.

6.1.7. Inspection during the acceptance testing shall be performed by means of special tools and verified (calibrated) measuring/testing devices (with valid calibration certificate), for example, communicator HART 375, current calibrator mAcal-R, calibrator MLC Jofra, multimeters, signal simulators or their blocks, and similar. If the work is performed at Contractor's site, normally the Contractor is to provide all the required tools and measuring/testing devices.

6.2. FACTORY ACCEPTANCE TEST (FAT)

6.2.1. FAT includes an inspection of ACS components. The following shall be checked: ACS automatic and automated function performance quality; ACS automatic and automated function quantitative and qualitative property compliance with the Technical Task; if it is specified in detail in the operating documentation about the performance of ACS functions established according to the Technical Task; other ACS features, which it has to comply with as per Technical Task; and design documents.

6.2.2. FAT shall be performed and documentation filed in by Contractor as per respective contract, unless established otherwise therein. MN personnel appointed as per current Procedure have to participate witness and control the work performed by Contractor, check the design and other documentation submitted by Contractor and inform CS Manager about the work performed, problems occurred and the solutions proposed.

6.2.3. Incomplete works or non-conformities, malfunctions or problems (hereinafter – punch items) established during FAT shall be registered in FAT Punch List. FAT Punch List specimen is provided in Annex 2.

6.2.4. Punch items, registered in FAT Punch List, shall be attributed to the respective category:

- **A** – to be eliminated on site. After elimination, FAT shall be continued;
- **B** – corrections to be done during FAT;
- **C** – FAT shall be repeated;
- **D** – changes shall be made after FAT, before SW/HW is sent to MN (operation site);
- **E** – the remaining corrections shall be performed by Contractor in MN (operation site).

6.2.5. FAT Punch List shall be developed by CSG personnel participating in FAT.

6.2.6. FAT Certificate shall be issued upon the completion of FAT. FAT Certificate specimen is provided in Annex 1. The conclusion regarding FAT acceptance shall be indicated as follows: „ACCEPTED“ or „NOT ACCEPTED“. The responsible CSG employee shall make a decision regarding the acceptance of FAT and indicate it respectively in the FAT Certificate.

If it is acknowledged that FAT was insufficient or documentation deficiencies (quantitative and qualitative) are identified, the specified part of ACS has to be corrected accordingly and other time for FAT may be assigned. A responsible CSG employee shall make a decision regarding the additional FAT. All deficiencies that caused the negative inspection results have to be corrected before performing the additional FAT.

6.2.7. FAT is considered completed only after the Contractor's responsible person and CSG responsible employee sign FAT Certificate and CSG responsible employee marks it as "ACCEPTED".

6.2.8. List of FAT checks (but not limited to):

6.2.8.1. **Design and other documentation check** – MN personnel participating in FAT must check all FAT-related documents.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 3.

6.2.8.2. **HW and SW check** – this procedure involves HW and SW inventory check. Verification of HW architecture, quantities, dimensions, etc. is to be in accordance with relevant documents (HW ordering documents, HW drawings submitted by vendor/manufacturer). SW licenses, versions as well as spare parts and tools (if any) shall be checked.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 4.

6.2.8.3. **HW inspection and mechanical check** – the compliance of HW architecture and layout with the relevant documents (project specification, applicable standards, vendor/manufacturer HW drawings) shall be checked.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 5.

6.2.8.4. **Electrical installation check** – the compliance of electrical wiring and cables with the project specification requirements and work quality compliance with the effective standards and HW documentation shall be checked.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 6.

6.2.8.5. **System start-up and general functional check** – It shall be verified that the system has no problems with start-up or restart after power supply interruption. It shall be verified that the system is operated within the established limits.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 7.

6.2.8.6. **System emergency alarm check** – inspection of system failure announcement and system-generated emergency alarm displays shall be performed as per alarm announcement check list.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 8.

6.2.8.7. **Hardware redundancy and diagnostic control check** – This procedure shall be performed to ensure proper operation and monitoring (control) of redundant components. It is necessary to check the redundancy function of all I/O (input / output) modules provided in the design. No single failure shall have an effect on the overall system operation.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 9.

6.2.8.8. **Visualization check** – This procedure is intended for checkup of standard and other graphic display arrangement at user's workplace in accordance with the specification. This item covers the static part of display only. The dynamic elements shall be tested as a part of system functionality check procedure.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 10.

6.2.8.9. **Functionality check** – This procedure is intended for checkup of system functionality according to relevant documents submitted, e.g. DCS / ESD / PLC algorithm diagrams. The inspection shall be performed as specified in the respective (work and time) schedule, 100 % check, on-site check, etc.

The inspection results shall be duly documented (by issuing an inspection report). An Inspection Report specimen is provided in Annex 11.

6.3. SITE ACCEPTANCE TEST (SAT)

6.3.1. SAT shall be performed after FAT. SAT is intended to assess if the delivered ACS comply with the functions indicated in the Technical Task after its delivery and installation in MN (operation site).

6.3.2. List of SAT checks (but not limited to):

6.3.2.1. **Control system documentation check** – MN personnel participating in SAT must check the following ACS-related documents: HW installation, operation manuals, provided by manufacturer, SW descriptions, licenses, SW descriptions developed by Contractor;

6.3.2.2. **HW check** – this procedure involves HW inventory check after its installation on site as per respective documents;

6.3.2.3. **SW and its version / license check** – this procedure involves SW inventory check, license and version check.

If deficiencies were identified during FAT, it shall be checked if the deficiencies have been eliminated.

6.3.2.4. **Mechanical check** – this procedure is intended to check if grounding systems, power supply and computer network connections are adequately installed.

6.3.2.5. Control system HW start-up and diagnostic check.

6.3.3. SAT inspection results shall be duly documented (by issuing a test report). An Test Report specimen is provided in Annex 12.

6.3.4. SAT shall be performed and the relevant documentation filled in by Contractor as per respective contract with MN, unless established otherwise therein. MN personnel appointed as per current Procedure have to participate witness and control the work performed by Contractor, check the documentation submitted by Contractor and inform CS Manager about the work performed, problems occurred and the solutions proposed.

6.3.5. Deficiencies identified during SAT shall be included in SAT Punch List. SAT Punch List specimen is provided in Annex 13.

6.3.6. Punch items, registered in SAT Punch List, shall be attributed to the respective category:

- **A** – to be eliminated on site. After elimination, SAT shall be continued;
- **B** – corrections to be done during SAT;
- **C** – SAT shall be repeated;
- **D** – changes shall be made after completion of SAT.

6.3.7. SAT Punch List shall be developed by CSG personnel participating in SAT.

6.3.8. SAT Certificate shall be issued upon the completion of SAT. SAT Certificate specimen is provided in Annex 14. The conclusion regarding SAT acceptance shall be indicated as follows: „ACCEPTED“ or „NOT ACCEPTED“. The responsible CSG employee shall make a decision regarding the acceptance of SAT and indicate it respectively in the SAT Certificate.

If it is acknowledged that SAT was insufficient or deficiencies are identified, the specified part of ACS has to be corrected accordingly. A responsible CSG employee shall make a decision regarding the additional SAT. All deficiencies that caused the negative inspection results have to be corrected before performing the additional SAT.

6.3.9. SAT is considered completed only after the Contractor's responsible person and CSG responsible employee sign SAT Certificate and CSG responsible employee marks it as **“ACCEPTED”**.

6.4. SITE INTEGRATION TEST (SIT)

6.4.1. SIT is intended to assess if the installed ACS operates properly and qualitatively along with other systems.

SIT is intended to test the relations and interaction of ACS with the integrated systems based on the control concept provided in the Technical Task and design documentation.

SIT involves a mechanical and diagnostic check of communication between integrated systems; also documents associated with ACS shall be verified: HW installation, operation manuals, provided by manufacturer, the associated design documentation.

6.4.2. SIT inspection results shall be duly documented (by issuing a test report). An Test Report specimen is provided in Annex 15.

6.4.3. SIT shall be performed and the relevant documentation filled in by Contractor as per respective contract with MN, unless established otherwise therein. MN personnel appointed as per current Procedure have to participate witness and control the work performed by Contractor, check the documentation submitted by Contractor and inform CS Manager about the work performed, problems occurred and the solutions proposed.

6.4.4. Deficiencies identified during SIT shall be included in SIT Punch List. SIT Punch List specimen is provided in Annex 16.

6.4.5. Punch items, registered in SIT Punch List, shall be attributed to the respective category:

- **A** – to be eliminated on site. After elimination, SIT shall be continued;
- **B** – corrections to be done during SIT;
- **C** – SIT shall be repeated;
- **D** – changes shall be made after completion of SIT.

6.4.6. SIT Punch List shall be developed by CSG personnel participating in SIT.

6.4.7. SIT Certificate shall be issued upon the completion of SIT. SIT Certificate specimen is provided in Annex 17. The conclusion regarding SIT acceptance shall be indicated as follows: „ACCEPTED“ or „NOT ACCEPTED“. The responsible CSG employee shall make a decision regarding the acceptance of SIT and indicate it respectively in the SIT Certificate.

If it is acknowledged that SIT was insufficient or deficiencies are identified, the specified part of ACS has to be corrected accordingly. A responsible CSG employee shall make a decision regarding the additional SIT. All deficiencies that caused the negative inspection results have to be corrected before performing the additional SIT.

6.4.8. SIT is considered completed only after the Contractor's responsible representative and CSG responsible employee sign SIT Certificate and CSG responsible employee marks it as **“ACCEPTED”**.

7. ACS ACCEPTANCE TESTING FOLLOW-UP WORKS

7.1. ACS Acceptance Certificate shall be issued based on the inspection performed after the execution of ACS acceptance testing. ACS Acceptance Certificate specimen is provided in Annex 18.

7.2. The responsible CS Manager shall make a decision regarding the ACS acceptance for operation and indicate it respectively in the ACS Acceptance Certificate. ACS Acceptance Certificate has to be signed by CS Manager and Contractor's responsible representative.

7.3. If required, SW and design documentation corrections shall be made for the respective part of ACS, which have to be indicated in ACS Acceptance Certificate.

8. CLOSING PROVISIONS

For failure to follow the requirements set forth in the present Regulations, MN employees shall be liable in accordance with the procedure established by the law of the Republic of Lithuania, other normative legal acts and legal acts issued by the Company.

Appendices:

1. Specimen of Factory Acceptance Test (FAT) Certificate;
2. Specimen of Factory Acceptance Test (FAT) Punch List;
3. Specimen of Document Inspection Report;
4. Specimen of HW and SW Check Report;
5. Specimen of HW Inspection and Mechanical Check Report;
6. Specimen of Wiring Check Report;
7. Specimen of Start-up and General System Function Check Report;
8. Specimen of System Alarm Check Report;
9. Specimen of Hardware Redundancy and Diagnostic Control Check Report;
10. Specimen of Visualization Check Report;
11. Specimen of Functionality Check Report;
12. Specimen of Site Acceptance Test (SAT) Report;
13. Specimen of Site Acceptance Test (SAT) Punch List;
14. Specimen of Site Acceptance Test (SAT) Certificate;
15. Specimen of Site Integration Test (SIT) Report;
16. Specimen of Site Integration Test (SIT) Punch List;
17. Specimen of Site Integration Test (SIT) Certificate;
18. Specimen of Automated Control System Acceptance Certificate.

AGREED BY:

Director of Capital Projects Realization

Director of Maintenance

Edvinas Bernotas
2009–

Jaroslaw Kaminski
2009–

Chief Instrumentation and Process Control
Engineer

Technical Analysis Manager of
Instrumentation and Process Control
Department

Antanas Rugys
2009–

Evaldas Usoris
2009–

Gintas Jasas, tel. 2142, e-mail: gintas.jasas@nafta.lt

(FAT akto pavyzdinė forma)

(Specimen of FAT Certificate)



GAMYKLINIŲ PRIIMAMŲJŲ BANDYMŲ (FAT) ATLIKIMO AKTAS

[FAT CERTIFICATE]

PRIIMTAS



[ACCEPTED]

NEPRIIMTAS



[NOT ACCEPTED]

PROJEKTAS [Project]		PROJEKTO NR. [Project No.]	
[RENGINYS [Unit]			
FAT ATLIKIMO VIETA [FAT location]		FAT UŽBAIGIMO DATA [FAT completed on]	

SPECIALŪS REIKALAVIMAI [Special requirements]	
NERASTA TRŪKUMŲ, KURIUOS REIKĖTŲ ĮTRAUKTI Į TRŪKUMŲ SĄRAŠĄ <input type="checkbox"/> [No Punch List items were found]	
RASTI TRŪKUMAI, ĮTRAUKIAMI Į SĄRAŠĄ [Punch List items were found]	<input type="checkbox"/> ŽR. PASTABAS TOLIAU ARBA PRIDEDAMĄ SĄRAŠĄ [See remarks below or list attached]
PAKARTOTINIS TIKRINIMAS BŪTINAS <input type="checkbox"/> [Re-check necessary]	NEBŪTINA S <input type="checkbox"/> [Not necessary]
Sistema paruošta išsiuntimui <input type="checkbox"/> [System ready for shipment]	
Perdavimo išsiuntimui pranešimas pateikiamas: [Release note for shipment to be given to]	
PASTABOS [Remarks]	

ATSAKINGAS ASMUO (asmens pareigų pavadinimas, parašas, vardas ir pavardė):
[Responsible person (position, signature, name and surname)]

UŽSAKOVAS (MAŽEIKIU NAFTA) [Customer (Mazeikiu Nafta)]	
RANGOVAS [Contractor]	

(FAT trūkumų sąrašo pavyzdinė forma)**(Specimen of Punch List)**

GAMYKLINIŲ PRIIMAMŲJŲ BANDYMŲ (FAT) TRŪKUMŲ SĄRAŠAS
[FAT PUNCH LIST]

Data [Date]

PROJEKTAS:
[Project]

PROJEKTO NR.
[Project No.]

PUNKTO NR. [Item]	APRAŠYMAS [Description]	ATSAKINGAS [Responsible]	KATEGO-RIJA¹ [Category]	UŽBAIGTAS [Complete]
1				
2				
3				

Užsakovas (Mažeikių nafta):

[Customer (Mazeikiu nafta)]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Rangovas:

[Vendor]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

¹ **A** – pašalinami vietoje. Pašalinus, FAT darbai tęsiami [to be cleared on the spot, FAT to continue after rectification];

B – ištaisymai vyksta FAT metu [ongoing rectification during FAT];

C – FAT reikia pakartoti [FAT to be repeated];

D – pakeitimai atliekami baigus FAT, prieš išsiunčiant PI/TI MN (į naudojimo vietą) [modifications to be made after FAT, before the SW/HW are shipped to MN (operations site)];

E – likę ištaisymo darbai atliekami rangovo MN (naudojimo vietoje) [remaining work to be rectified by Contractor at MN (operations site)].

(Dokumentų tikrinimo protokolo pavyzdinė forma)**(Specimen of Document Inspection Report)****DOKUMENTŲ TIKRINIMO PROTOKOLAS****[DOCUMENT AT INSPECTION REPORT]**

Data [Date]

PROJEKTAS:
 [Project]

Tikrinamas dokumentas [Inspected Document]	Tikrinimo rezultatas sėkmingas [Inspection Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch list]	Pastaba [Remark]
1.	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2.	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

 Tikrino:
 [Checked by]

 Asmens pareigų pavadinimas
 [Position]

 (Parašas)
 [Signature]

 (Vardas ir pavardė)
 [Name and surname]

 Asmens pareigų pavadinimas
 [Position]

 (Parašas)
 [Signature]

 (Vardas ir pavardė)
 [Name and surname]

(TĮ ir PĮ tikrinimo protokolo pavyzdinė forma)

(Specimen of HW and SW Check Report)



TĮ IR PĮ TIKRINIMO PROTOKOLAS

[HW AND SW CHECK REPORT]

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. TĮ tikrinimas [HW inventory check]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. PĮ, licenzijų / versijų tikrinimas [Check of SW licenses/versions]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Atsarginės dalys ir specialūs įrankiai [Spares and special tools]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:

[Checked by]

Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]

(TĮ apžiūros ir mechaninio tikrinimo protokolo pavyzdinė forma)

(Specimen of HW Inspection and Mechanical Check Report)



TĮ APŽIŪROS IR MECHANINIO TIKRINIMO PROTOKOLAS

[HW INSPECTION AND MECHANICAL CHECK REPORT]

Data [Date]

PROJEKTAS:
[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Vizuali apžiūra [Visual Check]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Prieiga prie įrangos atskirų dalių (komponentų, modulių) [Access to components and modules]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Vidiniai defektai [Internal defects]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Žymėjimas (markiravimas), ženklinimas, etikečių tvirtinimas [Marking, labeling, tagging]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
5. Įrangos sujungimai su išorinėmis grandinėmis, gnybtų skyriai ir kt. jungtys [Interconnections with external loops, terminals and other connections]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

6. Ventiliacijos sistema [Ventilation system]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
7. Įžeminimas, atskirų įžeminimo kontūrų izoliacija [Earthing, equipotential bonding]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
8. Apsauga nuo elektros smūgio, įspėjamieji ženklai [Electric shock protection, warning labels]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
9 Sistemos plėtimo galimybės [Spare capacity]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Elektros instaliacijos tikrinimo protokolo pavyzdinė forma)

(Specimen of Wiring Check Report)

**ELEKTROS INSTALIACIJOS TIKRINIMO PROTOKOLAS**

[WIRING CHECK REPORT]

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Elektros instaliacija ir kabeliai, vidinių grandinių kabeliai, kabeliniai įvadai ir laikikliai [Wiring and cabling, cabling of internal circuits, cable entry and supportbars/accessories]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Saugikliai, grandinių pertraukikliai [Fusing, circuit-breakers]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Linijų, spalvų, įtampų, Ex kabelių atskyrimas; paskirstymo dėžutės [Segregation of lines, colours, voltages, Ex cables; junction boxes]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Ženklinimas, etikečių tvirtinimas [Tagging, labeling]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

5. Laidų susisukimas [Wire crimp]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
6. Laidų patikrinimas patraukiant ranka [Manual wire pull test]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
7. Kabelių kanalai, kabelių loveliai [Cable conduits, cable trays]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
8. Laidų ir kabelių, jungčių žymėjimas [Wire, cable and connector labeling]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
9. Kištukai ir lizdai [Plugs and sockets]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
10. Dokumentai, susiję su sistemos įtampos izoliavimo matavimu [System voltage insulation test documents]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Place]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Place]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Paleidimo ir bendrųjų sistemos funkcijų tikrinimo protokolo pavyzdinė forma)

(Specimen of Start-up and General System Function Check Report)

**PALEIDIMO IR BENDRŲJŲ SISTEMOS FUNKCIJŲ TIKRINIMO PROTOKOLAS**

[START-UP AND GENERAL SYSTEM FUNCTION CHECK REPORT]

Data [Date]

PROJEKTAS:
 [Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Sistemos darbingumas paleidus ją iš naujo [Operability of system after the new start-up]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Sistemos darbingumas atlikus pakeitimus veikiančioje sistemoje [Operability of system after on-line change]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Valdiklio ciklo trukmė [Controller cycle duration]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Sistemos reakcijos laikas perjungiant vaizdus [System display call-up time]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
5. Verčių atnaujinimo laikas [Value update time]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
6. Sistemos apkrova [System load]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

7. Prisiregistravimo/išsiregistravimo strategija ir lygmenys [Log-on / Log-off strategy and levels]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
8. Avarinio signalo apdorojimo strategija ir patvirtinimas [Alarm signal processing strategy and acknowledgement]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
9. Duomenų archyvavimas [Data archiving]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Sistemos avarinės signalizacijos tikrinimo protokolo pavyzdinė forma)

(Specimen of System Alarm Check Report)



SISTEMOS AVARINĖS SIGNALIZACIJOS TIKRINIMO PROTOKOLAS

[SYSTEM ALARM CHECK REPORT]

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. NMS stebėjimas, dingus maitinimo įtampai [UPS monitoring, power-supply failure]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Saugiklių, automatinių jungiklių stebėjimas [Fuse, breaker monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Aušinimo ventiliatorių stebėjimas [Cooling fans monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Ryšių, tinklo stebėjimas [Communication, network monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
5. Pranešimų, susijusių su trumpuoju jungimu, nutrūkusių laidu, žeminimo gedimu, ribinių verčių viršijimu, generavimo stebėjimas [Message related to short circuit, wire break, earthing failure and exceeding of limit values generation monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

6. Stebėjimo įrenginio tikrinimas [Watchdog monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
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Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Įrangos dubliavimo tikrinimo protokolo pavyzdinė forma)

(Specimen of Hardware Redundancy Check Report)

**ĮRANGOS DUBLIAVIMO TIKRINIMO PROTOKOLAS****[HARDWARE REDUNDANCY CHECK REPORT]**

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Valdymo modulių (procesorių) dubliavimo funkcijos tikrinimas ir jų būsenų stebėjimas [Control module (processors) redundancy function check and monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Ryšių ir tinklo dubliavimo funkcijos tikrinimas ir jų būsenų stebėjimas [Communication and network redundancy function check and monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Elektros srovės tiekimo dubliavimo funkcijos tikrinimas ir srovės tiekimo būsenos stebėjimas [Power supply redundancy function check and power supply monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Naudotojo darbo vietų dubliavimo funkcijos tikrinimas ir naudotojo darbo vietų stebėjimas [User workplace redundancy function check and monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

5. Įėjimo / išėjimo (įvesties / išvesties) modulių dubliavimo funkcijos tikrinimas ir stebėjimas [Input / Output (I/O) module redundancy function check and monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
6. Kitos įrangos dubliavimo funkcijų tikrinimas ir stebėjimas [Other hardware redundancy function check and monitoring]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Vizualizacijos tikrinimo protokolo pavyzdinė forma)

(Specimen of Visualization Check Report)



VIZUALIZACIJOS TIKRINIMO PROTOKOLAS

[VIZUALIZATION CHECK REPORT]

Data [Date]

PROJEKTAS:
[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Technologinio proceso schemų ir / ar diagramų, atvaizduojamų languose, tikrinimas [Checking the display process diagrams and/or charts]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Fono spalvos, spalvinių žymėjimų ir jų kaitos tikrinimas [Checking the background colors, marking colors and their change]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Atvaizduojamų simbolių (talpyklų, vožtuvų, variklių ir pan.) tikrinimas [Checking the display symbols (tanks, valves, motors etc.)]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Atvaizduojamo teksto ir jo pokyčių tikrinimas [Checking the display text and its dynamics]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

5. Objektų sugrupavimo tikrinimas [Object grouping check]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
6. Diagramų grupių sudarymo tikrinimas [Trend grouping check]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
7. Funkcinių klavišų (klaviatūros) ir mygtukų funkcijų tikrinimas [Function key (keyboard) and button function check]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
8. Langų atvėrimo / iškvietimo, pasikeitimų, perėjimų tikrinimas [Checking of window opening / access, changes, transitions]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

Tikrino:
[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Funkcionalumo tikrinimo protokolo pavyzdinė forma)

(Specimen of Functionality Check Report)

**FUNKCIONALUMO TIKRINIMO PROTOKOLAS**

[FUNCTIONALITY CHECK REPORT]

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo būdo aprašymas [Check Description]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch List]	Pastaba [Remark]
1. Ciklo/funkcijos identifikavimo ir žymėjimo tikrinimas [Checking of cycle/function identification and labeling]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. Įėjimo / išėjimo (įvesčių / išvesčių) tikrinimas iki atvaizdavimo ekrane [Checking of I/O prior to the screen display]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. Detalus funkcionalumo bandymas su visais susijusiais tarpusavio blokavimais, avariniais signalais, pranešimais, diagramomis, signalų atnaujinimu [Detailed functional check including all related interlocks, alarm signals, messages, charts, signal updating]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Duomenų archyvavimo ir saugojimo duomenų bazėje tikrinimas [Checking of data archiving and saving in database]		<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

<p>5. Avarinių signalų (pranešimų) prioriteto lygių ir spalvinio žymėjimo tikrinimas [Checking of alarm signal (message) priority levels and color marking]</p>		<p><input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]</p>		
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Tikrino:
 [Checked by]

Asmens pareigų pavadinimas
 [Position]

(Parašas)
 [Signature]

(Vardas ir pavardė)
 [Name and surname]

Asmens pareigų pavadinimas
 [Position]

(Parašas)
 [Signature]

(Vardas ir pavardė)
 [Name and surname]

(Priimamųjų bandymų vietoje protokolo formos pavyzdys)

(Specimen of Site Acceptance Test Report)



PRIIMAMŪJŲ BANDYMŲ VIETOJE (SAT) PROTOKOLAS

[SITE ACCEPTANCE TEST REPORT]

Data [Date]

PROJEKTAS:

[Project]

Darbo (tikrinimo) pavadinimas [Work (check) title]	Tikrinimo rezultatas sėkmingas [Check result useful]	Nuoroda į trūkumų sąrašą [Reference to Punch list]	Pastaba [Remark]
1. Valdymo sistemos dokumentacijos tikrinimas [Control system documentation check]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
2. TĮ tikrinimas [HW check]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
3. PĮ, versijų / licenzijų tikrinimas [SW, version, license check] PĮ pataisymai atlikti [SW corrections performed]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant] <input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
4. Mechaninis tikrinimas [Mechanical inspection] Tinkamai prijungta žeminimo sistema [Grounding system properly connected]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

<p>Tinkamai prijungtas srovės tiekimas [Power supply properly connected]</p> <p>Tinkamai prijungtos tinklo jungtys [Network connections properly connected]</p>	<p><input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]</p> <p><input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]</p>		
<p>5. Paleidimas / diagnostinis tikrinimas [Start-up / Diagnostic check]</p> <p>Srovės tiekimo atitinkamai TĮ įjungimas [Activation of power supply for relevant HW]</p> <p>Atitinkamos TĮ priėmimas eksploatuoti / paleidimas ir diagnostinis tikrinimas [Commissioning / start-up of relevant HW and diagnostic check]</p>	<p><input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]</p> <p><input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]</p>		

Tikrino:

[Checked by]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

Asmens pareigų pavadinimas
[Position]

(Parašas)
[Signature]

(Vardas ir pavardė)
[Name and surname]

(Priimamųjų bandymų vietoje trūkumų sąrašo pavyzdinė forma)**(Specimen of Site Acceptance Test Punch List)****PRIIMAMŲJŲ BANDYMŲ VIETOJE (SAT) TRŪKUMŲ SĄRAŠAS****[SITE ACCEPTANCE TEST PUNCH LIST]**

Data [Date]

PROJEKTAS:

[Project]

PROJEKTO NR.

[Project No]

PUNKTO NR. [Item]	APRAŠYMAS [Description]	ATSAKINGAS [Executive]	KATEGO-RIJA² [Category]	UŽBAIGTAS [Complete]
1				
2				
3				

Užsakovas (Mažeikių nafta):

[Customer (Mazeikiu nafta):]

Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]

Rangovas:

[Vendor:]

Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]

² A – pašalinami vietoje. Pašalinus, SAT darbai tęsiasi [to be cleared on the spot, SAT to continue after rectification];
 B – ištaisymai vykdomi SAT metu [on going rectification during SAT];
 C – SAT reikia pakartoti [SAT to be repeated];
 D – pakeitimai atliekami baigus SAT [modifications to be made after SAT].

(Priimamųjų bandymų vietoje atlikimo akto pavyzdinė forma)**(Specimen of Site Acceptance Test Certificate)****PRIIMAMŲJŲ BANDYMŲ VIETOJE (SAT) ATLIKIMO AKTAS****[SAT CERTIFICATE]****PRIIMTAS****NEPRIIMTAS****[ACCEPTED]****[NOT ACCEPTED]**

PROJEKTAS [Project]		PROJEKTO NR. [Project No.]	
IRENGINYS [Unit]			
SAT ATLIKIMO VIETA [SAT location]		SAT UŽBAIGIMO DATA [SAT completed on]	

SPECIALŪS REIKALAVIMAI [Special requirements]	
NERASTA TRŪKUMŲ, KURIUOS REIKĖTŲ ĮTRAUKTI Į TRŪKUMŲ SĄRAŠĄ <input type="checkbox"/> [No Punch List items were found]	
RASTI TRŪKUMAI, ĮTRAUKIAMI Į SĄRAŠĄ [Punch List items were found]	<input type="checkbox"/> ŽR. PASTABAS TOLIAU ARBA PRIDEDAMĄ SĄRAŠĄ [See remarks below or list attached]
PAKARTOTINIS TIKRINIMAS BŪTINAS <input type="checkbox"/> [Re-check necessary]	NEBŪTINA S <input type="checkbox"/> [Not necessary]
PASTABOS [Remarks]	

ATSAKINGAS ASMUO (asmens pareigų pavadinimas, parašas, vardas ir pavardė):
[Responsible person (position, signature, name and surname)]

UŽSAKOVAS (MAŽEIKIU NAFTA) [Customer (Mazeikiu Nafta)]	
RANGOVAS [Contractor]	

(Integracijos bandymų vietoje protokolo formos pavyzdinė forma)**(Specimen of Site Integration Test Report)****INTEGRACIJOS BANDYMŲ VIETOJE (SIT) PROTOKOLAS****[SITE INTEGRATION TEST REPORT]****Data [Date]****PROJEKTAS:
[Project]**

Tikrinama sistema (pavadinimas, tipas, aprašymas) [System (title, type, description)]	Darbo (tikrinimo) pavadinimas [Work (Check) Title]	Tikrinimo rezultatas sėkmingas [Check Result Successful]	Nuoroda į trūkumų sąrašą [Reference to Punch list]	Pastaba [Remark]
	1. Valdymo sistemos dokumentacijos tikrinimas [Control system documentation check]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
	2. Mechaninis tikrinimas [Mechanical inspection] Tinkamai prijungtos tinklo jungtys [Network connections properly connected]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
	3. Ryšio tarp sistemų tikrinimas [Check of communication between systems] Įėjimo / išėjimo (įvesties / išvesties) signalai tarp sistemų funkcionuoja tinkamai [I/O signals between systems function properly]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		

	4. Programinės įrangos (vizualizacijos) tikrinimas [SW (visualization) check]	<input type="checkbox"/> Taip [Yes] <input type="checkbox"/> Ne [No] <input type="checkbox"/> Neaktualu [Not relevant]		
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Tikrino:

[Checked by]

Asmens pareigų pavadinimas
 [Position]

(Parašas)
 [Signature]

(Vardas ir pavardė)
 [Name and surname]

Asmens pareigų pavadinimas
 [Position]

(Parašas)
 [Signature]

(Vardas ir pavardė)
 [Name and surname]



(Integracijos bandymų naudojimo vietoje trūkumų sąrašo pavyzdinė forma)**(Specimen of Site Integration Test Punch List)****INTEGRACIJOS BANDYMŲ VIETOJE (SIT) TRŪKUMŲ SĄRAŠAS****[SITE INTEGRATION TEST PUNCH LIST]**

Data [Date]

PROJEKTAS:

[Project]

PROJEKTO NR.

[Project No]

PUNKTO NR. [Item]	APRAŠYMAS [Description]	ATSAKINGAS [Executive]	KATEGORIJA³ [Category]	UŽBAIGTAS [Complete]
1				
2				
3				

Užsakovas (Mažeikių nafta):

[Customer (Mazeikiu nafta):]

Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]

Rangovas:

[Vendor:]

Asmens pareigų pavadinimas
[Position](Parašas)
[Signature](Vardas ir pavardė)
[Name and surname]

³ A – pašalinami vietoje. Pašalinus, SIT darbai tęsiami [to be cleared on the spot, SIT to continue after rectification];

B – ištaisymai vykdomi SIT metu [on going rectification during SIT];

C – SIT reikia pakartoti [SIT to be repeated];

D – pakeitimai atliekami baigus SIT [modifications to be made after SIT].

(Integracijos bandymų naudojimo vietoje atlikimo akto pavyzdinė forma)**(Specimen Site Integration Test Certificate)****INTEGRACIJOS BANDYMŲ VIETOJE (SIT) ATLIKIMO AKTAS****[SITE INTEGRATION TEST CERTIFICATE]****PRIIMTAS****NEPRIIMTAS****[ACCEPTED]****[NOT ACCEPTED]**

PROJEKTAS [Project]		PROJEKTO NR. [Project No.]	
IRENGINYS [Unit]			
SIT ATLIKIMO VIETA [SIT location]		SIT UŽBAIGIMO DATA [SIT completed on]	

PATIKRINTOS SISTEMOS [Checked systems]	
PAGRINDINĖ SISTEMA [Main system]	
KITOS SISTEMOS [Other systems]	

SPECIALŪS REIKALAVIMAI [Special requirements]	
NERASTA TRŪKUMŲ, KURIUOS REIKĖTŲ ĮTRAUKTI Į TRŪKUMŲ SĄRAŠĄ <input type="checkbox"/> [No Punch List items were found]	
RASTI TRŪKUMAI, ĮTRAUKIAMI Į SĄRAŠĄ [Punch List items were found]	<input type="checkbox"/> ŽR. PASTABAS TOLIAU ARBA PRIDEDAMĄ SĄRAŠĄ [See remarks below or list attached]
PAKARTOTINIS TIKRINIMAS BŪTINAS <input type="checkbox"/> [Re-check necessary]	NEBŪTINA S <input type="checkbox"/> [Not necessary]
PASTABOS [Remarks]	

ATSAKINGAS ASMUO (asmens pareigų pavadinimas, parašas, vardas ir pavardė):
[Responsible person (position, signature, name and surname)]

UŽSAKOVAS (MAŽEIKIU NAFTA) [Customer (Mazeikiu Nafta)]	
RANGOVAS [Contractor]	

(Automatizuotos valdymo sistemos priėmimo akto pavyzdinė forma)**(Specimen of Automated Control System Acceptance Certificate)****AUTOMATIZUOTOS VALDYMO SISTEMOS PRIĖMIMO AKTAS****[AUTOMATED CONTROL SYSTEM ACCEPTANCE CERTIFICATE]**

PROJEKTAS [Project]		PROJEKTO NR. [Project No.]	
[RENGINYS [Unit]			
INTEGRUOTOS SISTEMOS [Systems integrated]			
FAT UŽBAIGIMO DATA [FAT completed on]			
SAT UŽBAIGIMO DATA [SAT completed on]			
SIT UŽBAIGIMO DATA [SIT completed on]			

NERASTA TRŪKUMŲ, KURIUOS REIKĖTŲ ĮTRAUKTI Į SĄRAŠĄ <input type="checkbox"/> [No Punch List items were found]	
RASTI TRŪKUMAI, ĮTRAUKIAMŲ Į SĄRAŠĄ <input type="checkbox"/> ŽR. PASTABAS TOLIAU ARBA PRIDEDAMĄ SĄRAŠĄ [Punch List items were found] [See remarks below or list attached]	
PASTABOS [Remarks]	

MES, TOLIAU PASIRAŠĘ PATVIRTINAME: [We, the undersigned, confirm the following]	
AVS PRIIMAMIEJI BANDYMAI ATLIKTI (pagal standarto LST EN 62381 reikalavimus) [Site acceptance test of Automated Control System performed (in accordance with the requirements of LST EN 62381:2007)]	<input type="checkbox"/>
AVS ĮRENGTA PAGAL TECHNINĖS UŽDUOTIES REIKALAVIMUS, PROJEKTINIUS DOKUMENTUS [Automated Control System has been installed in accordance with the requirements established in the technical task and design documentation, and contractual terms]	<input type="checkbox"/>

PASIRAŠIUSIŲJŲ ŠIŲ AKTŲ IŠVADA [Conclusions of the undersigned]	
PRIIMTI AVS EKSPLOATUOTI <input type="checkbox"/> [To accept Automated Control System for operation]	NEPRIIMTI AVS EKSPLOATUOTI <input type="checkbox"/> [Not to accept Automated Control System for operation]

ATSAKINGAS ASMUO (asmens pareigų pavadinimas, parašas, vardas ir pavardė):
[Responsible person (position, signature, name and surname)]

UŽSAKOVAS (MAŽEIKIU NAFTA) [Customer (Mazeikiu Nafta)]	
RANGOVAS [Contractor]	