

ООО "УГОПро"

ПРОГРАММА ПУСКОНАЛАДОЧНЫХ РАБОТ

По объекту: "Установка подготовки топливного и импульсного газа"
по адресу: "г. Новосибирск, Новосибирская область"

Согласовано

Главный инженер
ООО "НефтьКама"

_____ А.В. Медведев
« ____ » _____ 2025 г.

Утверждаю

Начальник Управления
ООО "НефтьКама"

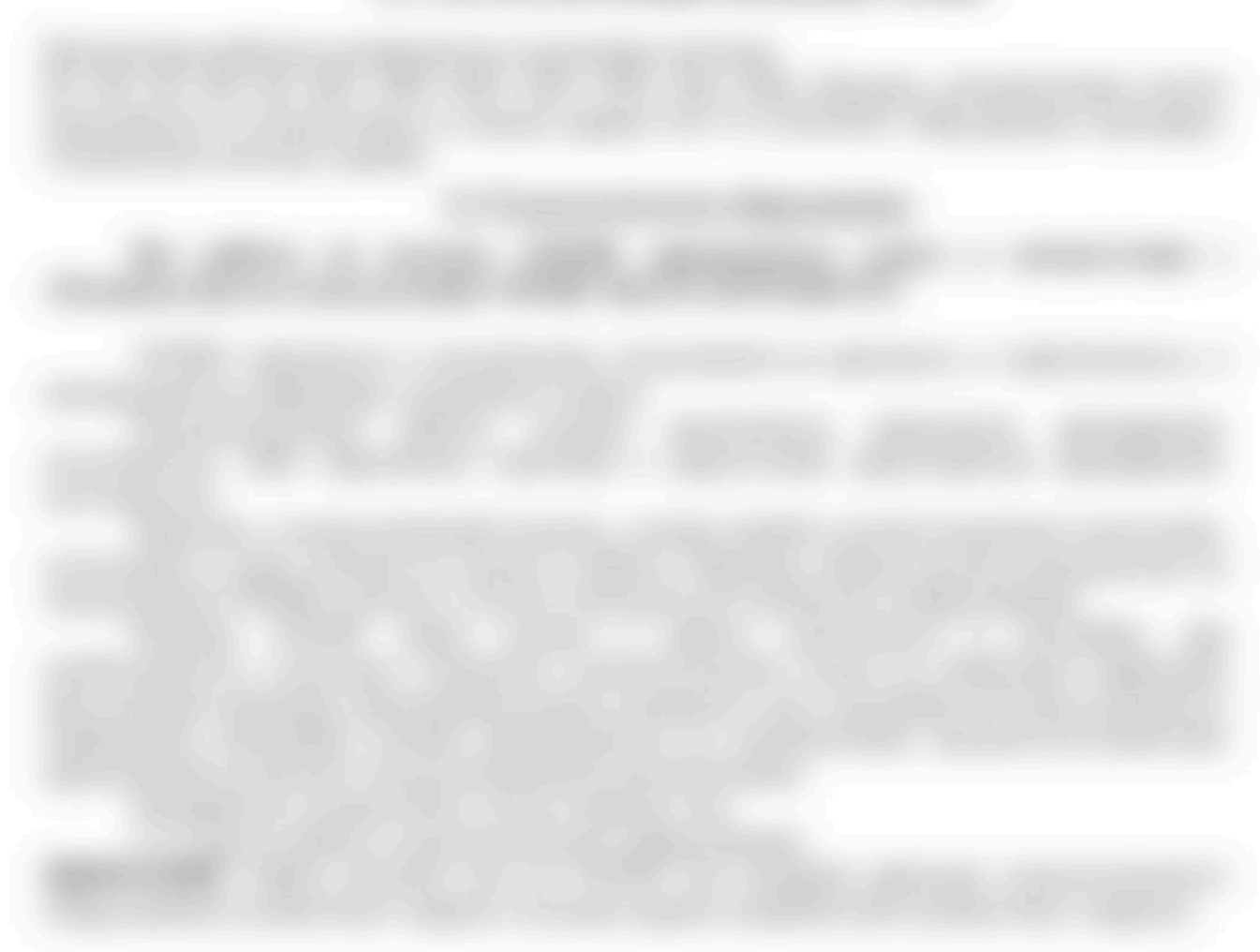
_____ И.С. Гордеев
« ____ » _____ 2025 г.

2025 год









1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1801. It is a very important document, as it is the first time that the President has addressed the Congress since the establishment of the new government.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the Treasury has reported to the Congress since the establishment of the new government.

3. The third part of the document is a report from the Secretary of the Navy, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the Navy has reported to the Congress since the establishment of the new government.

4. The fourth part of the document is a report from the Secretary of the War, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the War has reported to the Congress since the establishment of the new government.

5. The fifth part of the document is a report from the Secretary of the Interior, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the Interior has reported to the Congress since the establishment of the new government.

6. The sixth part of the document is a report from the Secretary of the State, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the State has reported to the Congress since the establishment of the new government.

7. The seventh part of the document is a report from the Secretary of the War, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the War has reported to the Congress since the establishment of the new government.

8. The eighth part of the document is a report from the Secretary of the Navy, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the Navy has reported to the Congress since the establishment of the new government.

9. The ninth part of the document is a report from the Secretary of the Treasury, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the Treasury has reported to the Congress since the establishment of the new government.

10. The tenth part of the document is a report from the Secretary of the State, dated January 3, 1801. It is a very important document, as it is the first time that the Secretary of the State has reported to the Congress since the establishment of the new government.

- 79/3, 79/4, 79/5 – на фильтрах-сепараторах;
- 186 – на трубопроводе конденсата;
- 131, 20 – на емкости E1;

2) плавно приоткрыть кран 74 и выполнить продувку через свечу "32". После продувки закрыть краны 74, 79/3, 79/4, 79/5, 131, 186, 20.

5.3.3.5 Для продувки газом трубопроводов наддува емкостей E1, E2 и трубопроводов слива конденсата в наружную емкость:

1) открыть краны:

- 101, 142 – отбора газа к емкостям;
- 4, 133 – на емкости E1;
- 115, 152, 135 – на емкости E2;

2) открыть кран приема конденсата и кран на продувочной свече наружной емкости конденсата;

3) плавно приоткрыть кран 74 и выполнить продувку через продувочную свечу наружной емкости конденсата. Во время продувки открыть на короткое время кран 415 и закрыть его. После продувки закрыть краны 74, 4, 101, 115, 142, 152, 135, 133 и краны на наружной емкости конденсата;

5.3.3.6 Для продувки газом трубопроводов в котельной:

1) открыть краны:

- 204, 205 – подачи газа к котлам №5, №6;
- 206, 207, 208, 240, 241, 242, 243;

2) открыть клапан КЭ;

3) плавно приоткрыть кран 74 и выполнить продувку через свечу "31". После продувки закрыть все краны.

5.3.3.7 При необходимости произвести настройку сбросных клапанов, регуляторов давления и клапанов - отсекаателей, руководствуясь документацией заводов-изготовителей (прилагается в комплект эксплуатационной документации).

5.3.4 Подготовка к пуску в работу системы теплоснабжения и отопительных агрегатов

ВНИМАНИЕ. Перед запуском в работу должны быть проведены пневмоиспытания системы теплоснабжения.

5.3.4.1 Испытаниям на плотность подвергаются следующие элементы системы теплоснабжения [ГОСТ Р 53402]:

- плотность материала корпусных деталей и сварных швов;
- герметичность относительно внешней среды по уплотнениям подвижных (сальник, сиффон, прокладочных, фитинговых, и т.д);

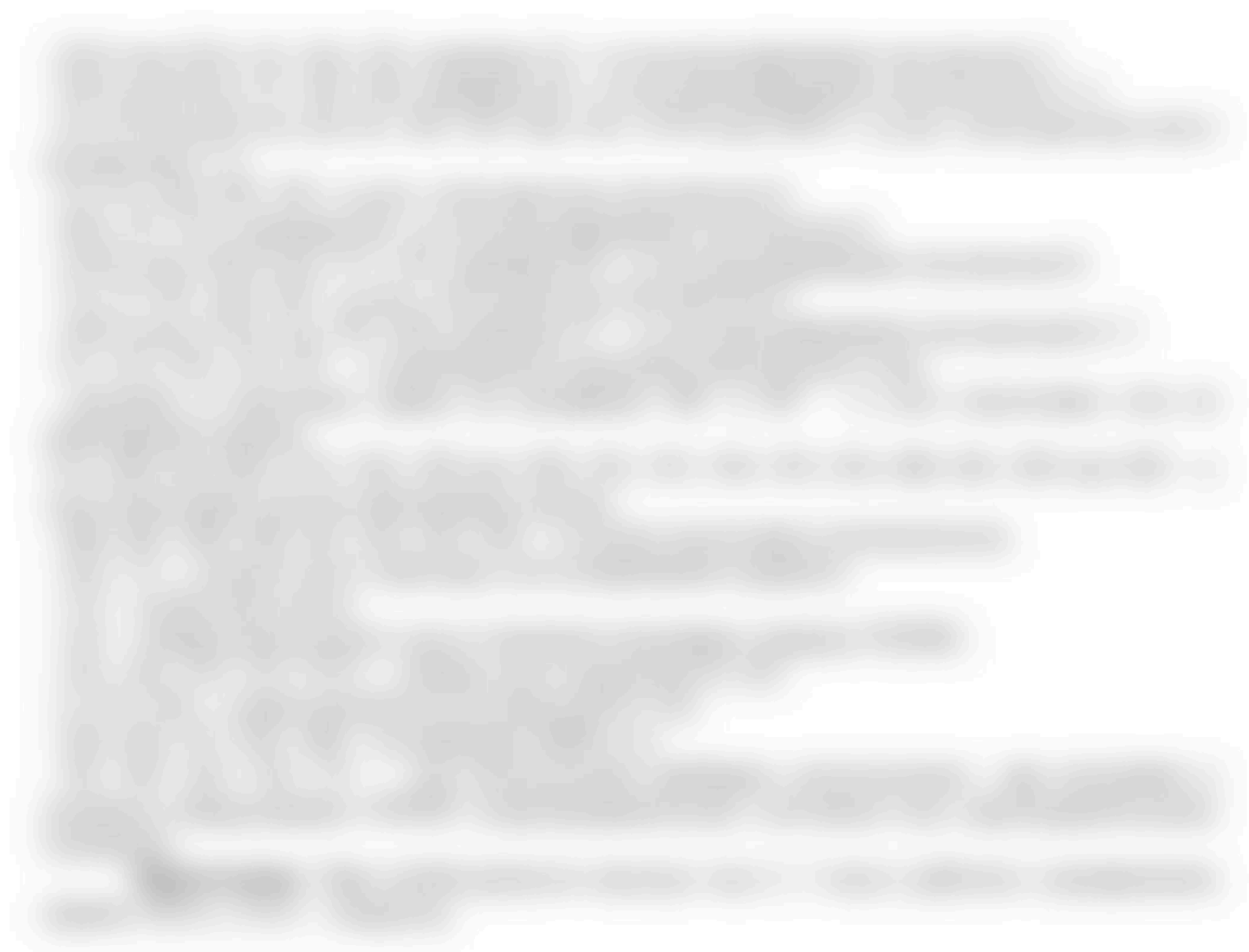
Испытания проводятся в два этапа:

- испытание пробным давлением (1,25Р_{раб}) теплоносителя [ПБ 03-585-03];
- испытание на рабочую температуру теплоносителя [РД 153-34.1-20.329-2001].

5.3.4.2 Перед пуском отопительных агрегатов заполнить систему теплоснабжения теплоносителем. Пуск отопительных агрегатов производить после запуска в работу узла подготовки газа на собственные нужды. Подачу газа к отопительным котлам производить открытием кранов 204, 205, 230 – 239.

5.3.4.3 Настройка и пуск отопительных агрегатов осуществляется в соответствии с документацией завода-изготовителя (прилагается в комплекте эксплуатационной документации). Наладка системы теплоснабжения, составление режимных карт проводятся в соответствии с РД 10-179-98 «Методические указания по разработки инструкций и режимных карт по эксплуатации установок до котловой обработки воды и по ведению водно-химического режима паровых и водогрейных котлов». Работы по составлению режимных карт ведутся на протяжении всего периода ПНР УПТПГ, ГПА, так как требуют работу УПТПГ в реальных станционных условиях с проектными расходами газа.

5.3.5 Подготовка к пуску и пуско-наладка систем КИП и А.



2000-2001

2002-2003

2004-2005

2006-2007

2008-2009

2010-2011

2012-2013

2014-2015

2016-2017

2018-2019



1. The first part of the document is a letter from the President of the United States to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

2. The second part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

3. The third part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

4. The fourth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

5. The fifth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

6. The sixth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

7. The seventh part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

8. The eighth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

9. The ninth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

10. The tenth part of the document is a letter from the President to the Congress, dated September 17, 1787. It is a very important document, as it is the first official communication from the President to the Congress. The letter is written in a very formal and dignified style, and it is a very good example of the President's power and authority.

1. The first step in the process is to identify the problem or issue that needs to be addressed.

2. Once the problem is identified, the next step is to gather relevant information and data.

3. After gathering information, the next step is to analyze the data and identify the root cause of the problem.

4. Once the root cause is identified, the next step is to develop a plan of action to address the problem.

5. The final step in the process is to implement the plan and monitor the results to ensure the problem is resolved.

6. Once the problem is resolved, the next step is to evaluate the effectiveness of the solution and make any necessary adjustments.

7. The final step in the process is to document the results and share the findings with relevant stakeholders.

8. Once the results are documented, the next step is to review the process and make any necessary improvements.

9. The final step in the process is to ensure that the solution is sustainable and that the problem does not recur.

10. Once the solution is sustainable, the next step is to celebrate the success and share the results with relevant stakeholders.

11. The final step in the process is to ensure that the solution is implemented correctly and that the problem is resolved.

12. Once the problem is resolved, the next step is to evaluate the effectiveness of the solution and make any necessary adjustments.

13. The final step in the process is to document the results and share the findings with relevant stakeholders.

14. Once the results are documented, the next step is to review the process and make any necessary improvements.

15. The final step in the process is to ensure that the solution is sustainable and that the problem does not recur.

16. Once the solution is sustainable, the next step is to celebrate the success and share the results with relevant stakeholders.

17. The final step in the process is to ensure that the solution is implemented correctly and that the problem is resolved.

18. Once the problem is resolved, the next step is to evaluate the effectiveness of the solution and make any necessary adjustments.

19. The final step in the process is to document the results and share the findings with relevant stakeholders.

20. Once the results are documented, the next step is to review the process and make any necessary improvements.

21. The final step in the process is to ensure that the solution is sustainable and that the problem does not recur.

22. Once the solution is sustainable, the next step is to celebrate the success and share the results with relevant stakeholders.

23. The final step in the process is to ensure that the solution is implemented correctly and that the problem is resolved.



THE UNIVERSITY OF CHICAGO

THE DIVISION OF THE PHYSICAL SCIENCES

DEPARTMENT OF CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

