

ООО "УГОПро"

ПРОГРАММА ПУСКОНАЛАДОЧНЫХ РАБОТ

По объекту: "Системы вентиляции и обогрева КЦ и промбазы"
по адресу: "г. Маслянино, 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 step in the process is to identify the problem.

2. The second step is to gather information about the problem.

3. The third step is to analyze the information and identify the causes of the problem.

4. The fourth step is to develop a plan to solve the problem.

5. The fifth step is to implement the plan and monitor the results.

6. The sixth step is to evaluate the results and make adjustments as needed.

7. The seventh step is to document the process and results.

8. The eighth step is to communicate the results to the relevant stakeholders.

9. The ninth step is to review the process and make improvements.

10. The tenth step is to implement the improvements and monitor the results.

11. The eleventh step is to evaluate the results and make adjustments as needed.

12. The twelfth step is to document the process and results.

13. The thirteenth step is to communicate the results to the relevant stakeholders.

14. The fourteenth step is to review the process and make improvements.

15. The fifteenth step is to implement the improvements and monitor the results.

16. The sixteenth step is to evaluate the results and make adjustments as needed.

17. The seventeenth step is to document the process and results.

18. The eighteenth step is to communicate the results to the relevant stakeholders.

19. The nineteenth step is to review the process and make improvements.

20. The twentieth step is to implement the improvements and monitor the results.

21. The twenty-first step is to evaluate the results and make adjustments as needed.

22. The twenty-second step is to document the process and results.

23. The twenty-third step is to communicate the results to the relevant stakeholders.

24. The twenty-fourth step is to review the process and make improvements.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations. The text also mentions that proper record-keeping is essential for identifying trends and making informed decisions.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It describes how different types of data are gathered and how they are processed to extract meaningful insights. The text highlights the importance of using reliable and valid data sources to ensure the accuracy of the findings.

3. The third part of the document focuses on the interpretation of the results and the drawing of conclusions. It explains how the data is analyzed to identify patterns and trends, and how these findings are used to inform decision-making. The text also discusses the importance of communicating the results effectively to the relevant stakeholders.

4. The fourth part of the document discusses the implications of the findings and the recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends and to develop more effective strategies for addressing the identified issues. The text also mentions the need for ongoing monitoring and evaluation to ensure the continued relevance and effectiveness of the findings.

CONCLUSION

- The findings of this study indicate that there is a significant positive correlation between the variables studied.
- The results suggest that the proposed model is a valid and reliable tool for predicting the outcome of the study.
- The study also identified several limitations and areas for future research, including the need for larger sample sizes and more diverse data sources.
- The findings have important implications for the field of study and for the development of effective strategies.
- The study concludes that the proposed model can be used as a valuable tool for decision-making and for improving the efficiency of the organization's operations.

Overall, the study provides a comprehensive analysis of the research topic and offers valuable insights into the underlying trends and patterns.

1

1

1

1

1

1

1

1

1

1

1

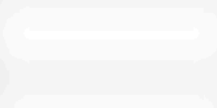
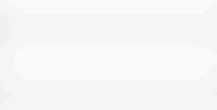
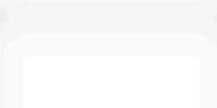
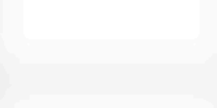
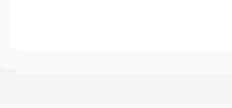
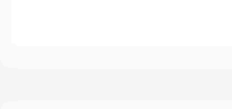
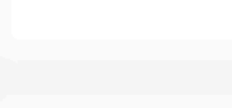
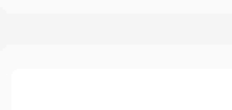
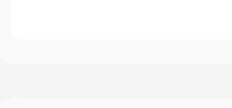
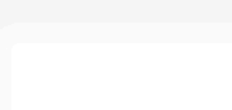
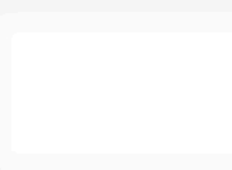
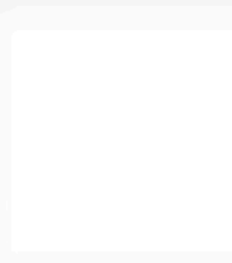
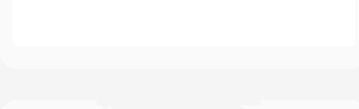
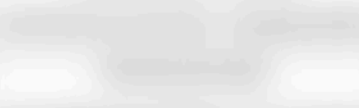
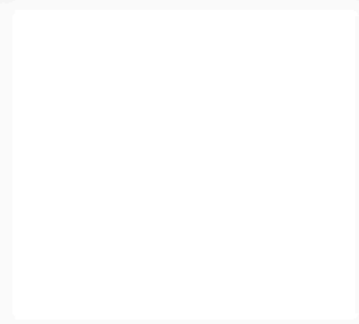
1

1

1

1

1



11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

卷之四

四

四

四

四

四

四



5. Система обогрева и вентиляции ГПА

5.1. Объект испытания

5.1.1. Испытаниям подвергают агрегат воздухонагревательный газовый модульный модифицированного АВГМ-400М, полностью укомплектован.

5.1.2. Краткое описание конструкции и принципа действия агрегата:
Агрегат воздухонагревательный газовый модульный АВГМ-400М предназначен для подогрева приточного свежего воздуха, подаваемого в отапливаемое помещение, до необходимой температуры посредством непрямого нагрева.

Управление агрегатом, система аварийных защит и блокировок, а также индикация текущих и аварийных параметров осуществляется с помощью щита управления и сигнализации, выполненного на базе контроллера «SIEMENS».

Автоматика агрегата обеспечивает автоматический розжиг, аварийное отключение воздухонагревателя и автоматическое поддержание температуры в отапливаемом помещении.

Автоматика безопасности обеспечивает срабатывание блокировок и прекращение подачи газа на горелки (с фиксацией первопричины), сопровождающееся звуковой и световой сигнализацией в следующих ситуациях:

- погасание пламени горелки;
- повышение давления газа в сетевой магистрали (либо после регулятора давления);
- понижение давления газа перед горелкой;
- понижение перепада давления воздуха в топке горелки;
- превышение допустимой температуры нагреваемого воздуха;

1. The first step in the process of creating a business plan is to conduct a market research. This involves gathering information about the industry, the target market, and the competition. The next step is to develop a marketing strategy, which includes determining the target market, the marketing mix, and the promotional activities. The third step is to develop a financial plan, which includes determining the start-up costs, the operating expenses, and the revenue projections. The final step is to write the business plan, which is a document that outlines the business's goals, strategies, and financial projections.

2. The business plan is a document that outlines the business's goals, strategies, and financial projections. It is a key tool for securing financing and for managing the business. The business plan should be updated regularly as the business grows and changes.

3. The business plan is a document that outlines the business's goals, strategies, and financial projections. It is a key tool for securing financing and for managing the business. The business plan should be updated regularly as the business grows and changes. The business plan should also be used to monitor the business's performance and to make adjustments as needed.

4. The business plan is a document that outlines the business's goals, strategies, and financial projections. It is a key tool for securing financing and for managing the business. The business plan should be updated regularly as the business grows and changes. The business plan should also be used to monitor the business's performance and to make adjustments as needed.

5. The business plan is a document that outlines the business's goals, strategies, and financial projections. It is a key tool for securing financing and for managing the business. The business plan should be updated regularly as the business grows and changes. The business plan should also be used to monitor the business's performance and to make adjustments as needed.

6. The business plan is a document that outlines the business's goals, strategies, and financial projections. It is a key tool for securing financing and for managing the business. The business plan should be updated regularly as the business grows and changes. The business plan should also be used to monitor the business's performance and to make adjustments as needed.

1. The first step in the process of creating a business plan is to conduct a market analysis. This involves researching the industry, identifying potential customers, and understanding the competitive landscape. A thorough market analysis provides valuable insights into the viability of the business idea and helps to shape the overall strategy.

2. Once the market analysis is complete, the next step is to develop a business model. This involves determining how the business will generate revenue and what resources are required to operate. A clear business model is essential for attracting investors and securing financing.

3. The third step is to create a financial plan. This includes projecting the company's income, expenses, and cash flow over a period of time. A detailed financial plan allows the entrepreneur to assess the financial feasibility of the business and to identify potential risks and opportunities. It also serves as a tool for monitoring the company's performance and making adjustments as needed.

4. Writing the Business Plan

4. The final step in the process is to write the business plan. This document should clearly and concisely communicate the business's goals, strategy, and financial projections. It should be tailored to the specific needs of the business and the audience for whom it is intended. A well-written business plan is a critical tool for securing financing and guiding the company's growth.

5. Once the business plan is complete, the entrepreneur can begin to implement the strategy. This involves launching the business, marketing the products or services, and building a strong customer base. Regular monitoring and evaluation of the business's performance are essential to ensure that the strategy is being effectively executed.

6. The final step in the process is to review and update the business plan. As the business grows and the market evolves, it may be necessary to revise the plan to reflect changes in the business's goals, strategy, and financial projections. Regular reviews ensure that the business plan remains relevant and effective.

7. The business plan is a living document that should be updated as the business grows and the market evolves. Regular reviews and updates ensure that the plan remains relevant and effective. The business plan is a critical tool for securing financing and guiding the company's growth.

8. The business plan is a living document that should be updated as the business grows and the market evolves. Regular reviews and updates ensure that the plan remains relevant and effective. The business plan is a critical tool for securing financing and guiding the company's growth.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

2. The second part of the document outlines the various methods used to collect and analyze data, including the use of statistical software and the importance of sample size and representativeness.

3. The third part of the document describes the results of the study, including the mean and standard deviation of the data, and the significance of the findings.

4. The fourth part of the document discusses the limitations of the study and the need for further research in this area.

5. The fifth part of the document provides a conclusion and recommendations for future research.

6. The sixth part of the document includes a list of references and a table of contents.

7. The seventh part of the document contains a glossary of terms and a list of abbreviations.

8. The eighth part of the document includes a list of figures and tables.

9. The ninth part of the document contains a list of appendices.

10. The tenth part of the document includes a list of footnotes and a list of references.

11. The eleventh part of the document contains a list of appendices.

12. The twelfth part of the document includes a list of footnotes and a list of references.

13. The thirteenth part of the document contains a list of appendices.

14. The fourteenth part of the document includes a list of footnotes and a list of references.

15. The fifteenth part of the document contains a list of appendices.

16. The sixteenth part of the document includes a list of footnotes and a list of references.

17. The seventeenth part of the document contains a list of appendices.

18. The eighteenth part of the document includes a list of footnotes and a list of references.

19. The nineteenth part of the document contains a list of appendices.

20. The twentieth part of the document includes a list of footnotes and a list of references.

21. The twenty-first part of the document contains a list of appendices.

22. The twenty-second part of the document includes a list of footnotes and a list of references.

23. The twenty-third part of the document contains a list of appendices.

24. The twenty-fourth part of the document includes a list of footnotes and a list of references.

Осуществляется путем имитации повышения температуры. При этом должен выключиться вентилятор подачи нагретого воздуха (с задержкой), отключиться горелка и сработать световая и звуковая сигнализация;

- 5.5.27. Проверка срабатывания по увеличению температуры дымовых газов после горелки выше значения аварийной уставки. Осуществляется при работе соответствующей горелки путем имитации повышения температуры дымовых газов. При этом должен выключиться вентилятор подачи нагретого воздуха (с задержкой), отключиться горелка и сработать световая и звуковая сигнализация;
- 5.5.28. Проверка срабатывания автоматического запорного органа. Осуществляется путем отключения автоматического выключателя электрической сети с одновременным включением секундомера, при этом должна произойти отсечка газа. Время закрытия данного автоматического запорного органа не должно превышать 1 секунду;
- 5.5.29. Результаты проведенных измерений должны заноситься в протокол.
- 5.5.30. Проверка работоспособности системы контроля загазованности в АВГМ и алгоритма действия САУ АВГМ при этом.
- 5.5.31. Контролю подлежит реакция САУ АВГМ на превышение концентрации метана CH_4 в секции обслуживания, как при работающем, так и при неработающем агрегате.
- 5.5.32. Проверка работоспособности системы контроля загазованности в АВГМ производится путем подачи поверочных газовых смесей (ПГС). При этом должна появиться соответствующая сигнализация на приборе измерения концентрации, прибор должен выдать сигнал в САУ АВГМ.
- 5.5.33. При достижении концентрации СНЦ значения 10% от НКПР (наименьший концентрационный предел распространения пламени), должна появиться предварительная сигнализация на щите местного управления, на диспетчерском пульте верхнего уровня, и сработать светозвуковая сигнализация снаружи АВГМ.

1. Introduction

2. Background

3. Methodology

4. Results

5. Conclusion

6. References

7. Appendix

8. Notes

9. Abstract

10. Keywords

11. Summary

12. References

13. Appendix

14. Notes

15. Conclusion

16. References

... ..
... ..

... ..
... ..
... ..
... ..
... ..
... ..

... ..
... ..

... ..

... ..
... ..

... ..
... ..
... ..

... ..
... ..
... ..
... ..
... ..
... ..

... ..
... ..
... ..
... ..
... ..
... ..

... ..
... ..

... ..
... ..

... ..

QUESTION

1. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the Net Present Value (NPV) of the project?

2. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the Internal Rate of Return (IRR) of the project?

3. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the Payback Period of the project?

4. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the Profitability Index (PI) of the project?

5. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the NPV of the project if the cost of capital is 12%?

6. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the NPV of the project if the cost of capital is 8%?

7. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the NPV of the project if the cost of capital is 15%?

8. A company is considering a new investment project. The project has a 5-year life and requires an initial investment of \$100,000. The project is expected to generate annual cash flows of \$25,000. The company's cost of capital is 10%. What is the NPV of the project if the cost of capital is 5%?

обслуживания АВГМ при нахождении его в неактивном режиме, включить в шкафу управления и электропитания автоматический выключатель подачи питания на электротепловентилятор блока в обход САУ АВГМ.

Установить на штатном электротепловентиляторе АВГМ термостат в максимальное положение, что позволит поддерживать в секции обслуживания температуру выше критичных +5 °С.

5.5.100. После проверки работоспособность системы электрообогрева АВГМ, выключить в шкафу управления и электропитания автоматический выключатель подачи питания на электротепловентилятор секции обслуживания АВГМ в обход САУ АВГМ.

5.5.101. Результаты проведенных измерений необходимо занести в протокол испытаний.

5.5.102. Определение уровня звуковой мощности

5.5.103. Определение звуковой мощности производят на различных режимах работы агрегата и при различных наружных условиях.

В соответствии с техническими характеристиками на АВГМ, шумовые характеристики работающего агрегата должны быть не более 80 дБ (за вычетом фона) по ГОСТ 12.1.003-83.

5.5.104. Включить агрегат в работу в режиме вентиляции, провести измерение уровня шума на данном режиме.

5.6.93. Для измерения уровня шума при работе агрегата на различных режимах работы, имитировать различные значения температуры воздуха в отапливаемом помещении.

5.5.105. Установить параметр «Температура воздуха в отапливаемом помещении» на значение +4 ОС. Включить агрегат в работу в режиме обогрева на поддержание температуры в отапливаемом помещении +5 ОС, провести измерение уровня шума на данном (минимальном) режиме.

5.5.106. Установить параметр «Температура воздуха в отапливаемом помещении» на значение -5 ОС. Включить агрегат в работу в режиме обогрева на поддержание температуры в отапливаемом помещении +16 ОС, провести измерение уровня

1. Introduction

2. Theoretical Framework

3. Methodology

4. Results

5. Discussion

6. Conclusion

7. References

8. Appendix

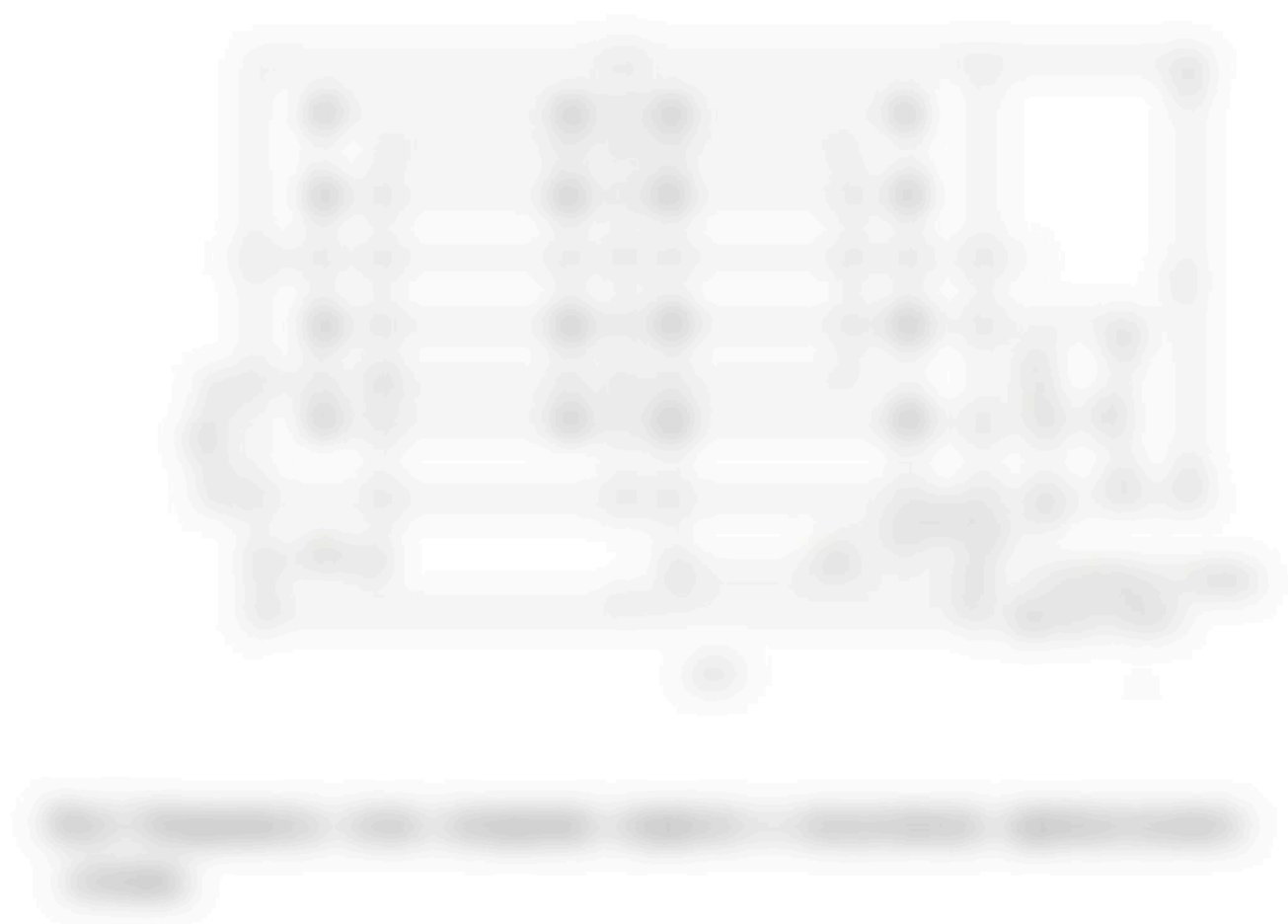
9. Acknowledgments

10. Author Biographies

11. Correspondence

12. Contact Information

一、
二、
三、
四、
五、
六、
七、
八、
九、
十、
十一、
十二、
十三、
十四、
十五、
十六、
十七、
十八、
十九、
二十、
二十一、
二十二、
二十三、
二十四、
二十五、
二十六、
二十七、
二十八、
二十九、
三十、
三十一、
三十二、
三十三、
三十四、
三十五、
三十六、
三十七、
三十八、
三十九、
四十、
四十一、
四十二、
四十三、
四十四、
四十五、
四十六、
四十七、
四十八、
四十九、
五十、
五十一、
五十二、
五十三、
五十四、
五十五、
五十六、
五十七、
五十八、
五十九、
六十、
六十一、
六十二、
六十三、
六十四、
六十五、
六十六、
六十七、
六十八、
六十九、
七十、
七十一、
七十二、
七十三、
七十四、
七十五、
七十六、
七十七、
七十八、
七十九、
八十、
八十一、
八十二、
八十三、
八十四、
八十五、
八十六、
八十七、
八十八、
八十九、
九十、
九十一、
九十二、
九十三、
九十四、
九十五、
九十六、
九十七、
九十八、
九十九、
一百、







THEORY OF THE EARTH

The theory of the earth is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the time scale of these processes. The theory of the earth is based on the study of the earth's structure and its history, and on the application of the principles of geology to the understanding of the earth's development.

The theory of the earth is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the time scale of these processes. The theory of the earth is based on the study of the earth's structure and its history, and on the application of the principles of geology to the understanding of the earth's development.

The theory of the earth is a branch of geology which deals with the origin and development of the earth and its various parts. It is a science which seeks to explain the processes which have shaped the earth and its features, and to determine the time scale of these processes. The theory of the earth is based on the study of the earth's structure and its history, and on the application of the principles of geology to the understanding of the earth's development.

一、
二、
三、
四、
五、
六、
七、
八、
九、
十、
十一、
十二、
十三、
十四、
十五、
十六、
十七、
十八、
十九、
二十、
二十一、
二十二、
二十三、
二十四、
二十五、
二十六、
二十七、
二十八、
二十九、
三十、
三十一、
三十二、
三十三、
三十四、
三十五、
三十六、
三十七、
三十八、
三十九、
四十、
四十一、
四十二、
四十三、
四十四、
四十五、
四十六、
四十七、
四十八、
四十九、
五十、
五十一、
五十二、
五十三、
五十四、
五十五、
五十六、
五十七、
五十八、
五十九、
六十、
六十一、
六十二、
六十三、
六十四、
六十五、
六十六、
六十七、
六十八、
六十九、
七十、
七十一、
七十二、
七十三、
七十四、
七十五、
七十六、
七十七、
七十八、
七十九、
八十、
八十一、
八十二、
八十三、
八十四、
八十五、
八十六、
八十七、
八十八、
八十九、
九十、
九十一、
九十二、
九十三、
九十四、
九十五、
九十六、
九十七、
九十八、
九十九、
一百、

- входить в камеру кондиционера при работающем вентиляционном агрегате;

- прикасаться руками к вращающимся частям вентиляционных устройств до их полной остановки;

- снимать и устанавливать ограждения вращающихся частей вентиляционного оборудования до их полной остановки;

- чистить и смазывать работающее вентиляционное оборудование;

- открывать силовые щиты, пусковую арматуру и защитные кожухи токоведущих частей электрооборудования без разрешения эксплуатирующей организации.

8.5. Инструкции, регламентирующие выполнение работ по испытаниям и наладке вентиляционных систем, должны содержать общие вопросы безопасности и следующие обязательные разделы требований безопасности:

- перед началом работ;

- во время работ;

- при работе на высоте с применением лестниц и стремянок;

- пожарной и электробезопасности;

- при работе с электроинструментом;

- в аварийных ситуациях;

- по окончании работ.

8.6. Персонал эксплуатирующей организации в вопросах техники безопасности должен руководствоваться положениями настоящего стандарта, а также утвержденными инструкциями и положениями.

8.7. Организационные вопросы обеспечения техники безопасности при испытаниях и наладке вентиляционных систем должны решаться с учетом положений нормативных документов, перечисленных в предыдущих разделах настоящего стандарта, а также ГОСТ 12.2.003, ГОСТ 12.2.007.0, ПБ 03-590-03 , ПБ 08-624-03, ПОТ РМ-026-2003.

