



COMMONWEALTH of VIRGINIA

Department of Air Pollution Control

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AGREEMENT

WITH

AQUALON COMPANY
HOPEWELL, VIRGINIA

Registration No. 50363

SECTION A: PURPOSE

It is the intent of the Department that the laws and regulations of the Commonwealth be most expeditiously served and that the environment and public welfare be administered and protected by entering into this Agreement. It is the intent of Aqualon Company to cooperate fully with all the laws and regulations. This Agreement requires that Aqualon Company reduce their maximum allowable 24-hour sulfur dioxide emissions from Aqualon Company Boiler Number 5 by 851 pounds per day. This sulfur dioxide reduction of 851 pounds per day will be provided to the Hadson Power 13 - Hopewell cogeneration facility to be used as an offset for their short-term (24-hour) ISCST modeled concentrations for their PSD Air Quality Permit Application occurring under a modeled National Air Quality Standard ("NAAQS") exceedence to which Aqualon Company Boiler Number 5 is significantly contributing.

SECTION B: REFERENCES

Unless the context indicates otherwise, the following words and terms have the meanings assigned to them below:

1. "Agreement" means a legally enforceable instrument executed by the Owner and the Director to provide an allowable offset from Aqualon Company to Hadson Power 13 - Hopewell. Such Agreements shall not be considered an enforcement action but shall be enforceable as an order of the Board under the Virginia Air Pollution Control Law.

2. "Code" means the Code of Virginia (1950), as amended.
3. "BOARD" means the State Air Pollution Control Board, a collegiate body of the Commonwealth of Virginia described in Chapter 13 of Title 10.1 of the Code.
4. "SAPCB Regulations" means the "State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution."
5. "Department" means the Department of Air Pollution Control, an agency of the Commonwealth described in Code Section 10.1-1303.
6. "Director" means the Executive Director of the Department.
7. "Aqualon Company" refers to the chemical manufacturing facility of that name located in the City of Hopewell, Virginia, formerly named Hercules, Inc. Aqualon Company is a Delaware partnership between Hercules Credit, Inc., a Delaware corporation qualified to conduct business in Virginia, and WSP, Inc., a Virginia corporation.
8. "Region V" refers to the staff of the Commonwealth of Virginia Department of Air Pollution Control, Region V, located at Richmond, Virginia.
9. "OFFSET" means a Federally enforceable reduction of daily allowable (24-hour) sulfur dioxide emissions from Aqualon Company to be provided to Hadson Power 13 - Hopewell, to be used as a reduction for short-term (24-hour) ISCST modeling concentrations, for Hadson Power 13's PSD Application Air Quality Permit.
10. "Hadson Power 13 - Hopewell" refers to a 60 MW coal cogeneration project, providing steam to Firestone Fibers and Textiles Company and electricity to Virginia Power, which has applied for a PSD Air Permit from the Department.
11. "Aqualon Boiler Number 5" refers to an Edgemoor 3225 boiler rated at 180 MMBtu per hour, also referred to as point I.D. Number 01, on Virginia Department of Air Pollution Control Source Inventory.
12. "PSD" means Prevention of Significant Deterioration.
13. "NAAQS" means National Ambient Air Quality Standard.

SECTION C: BACKGROUND

1. On January 9, 1984 the Department issued a permit (CMP-009-84) to Hercules, Inc. (now known as Aqualon Company), Registration Number 50363. This permit limits sulfur dioxide emissions from Aqualon Boiler Number 5 to 2.37 pounds per 10^6 Btu and 1,212 tons per year. O-D
2. On April 12, 1990, the final revised Air Quality Impact Analysis in support of the PSD Air Permit Application for the Hadson Power 13 - Hopewell cogeneration facility was submitted to the Virginia Department of Air Pollution Control (VDAPC). This analysis indicated that the sulfur dioxide (SO_2) 24-hour National Ambient Air Quality Standard (NAAQS) was exceeded at various receptors on the modeling grid. At eight of these receptors where the SO_2 24-hour NAAQS was exceeded, results from EPA's ISCST air quality model showed significant concentrations ($\geq 5 \text{ ug/m}^3$) from Hadson Power 13 - Hopewell.
3. Environmental Protection Agency modeling policy for air quality modeling for PSD permits requires that when the air quality analysis predicts that a NAAQS violation will occur, and that the proposed source will have a significant impact on the violation, that the proposed source cannot be issued a permit without further control or offsets. If offsets are obtained, offsets sufficient to compensate for the source's significant impact must be obtained consistent with SIP requirement under 40 CFR 51.165(b).
4. In order to become insignificant at receptors where the SO_2 24-hour NAAQS was exceeded, Hadson Power - 13 Hopewell will receive an SO_2 offset from Aqualon Company. This SO_2 offset has been modeled for short-term 24-hour concentrations, and will be used as emission credits for the resultant SO_2 24-hour modeled concentrations from Hadson Power 13 - Hopewell, so that insignificance will be achieved at these receptors where the SO_2 24-hour NAAQS is exceeded.

SECTION D: Findings

As mentioned in Section C of this Agreement, the Final Revised Air Quality Impact Analysis for Hadson Power 13 - Hopewell was submitted to the VDAPC on April 12, 1990. Within the PSD Air Quality Impact Analysis ISCST modelled 24-hour SO_2 contributions from Hadson Power 13 - Hopewell and neighboring sources that include Aqualon are explained in text and shown in table form for the eight receptor locations where the 24-hour SO_2 NAAQS is exceeded. The following table summarizes this information by showing only Hadson Power 13 - Hopewell and Aqualon Company Boiler Number 5 source contributions to these receptors.

HADSON POWER 13 - HOPEWELL AND AQUALON CONTRIBUTION

	<u>24-Hour SO₂ Contribution ug/m³</u>							
Hadson Power 13 - Hopewell	7.04	6.33	5.94	5.65	5.20	6.20	5.13	5.23
Offset Required to be Below Significance (5 ug/m ³)	2.05	1.34	0.95	0.66	0.21	1.21	0.14	0.24
Aqualon Company Boiler Number 5	30.1	17.9	16.6	47.3	39.6	28.0	71.7	48.9

As shown above, the largest short-term (24-hour) SO₂ offset required is 2.05 ug/m³ to be below significance (5 ug/m³). Below is a summary of resultant Hadson Power 13 - Hopewell 24-hour contributions incorporating offsets from Aqualon Company Boiler Number 5.

**HADSON POWER 13 - HOPEWELL
 OFFSET RESULTANT CONTRIBUTION SUMMARY**

	<u>24-Hour SO₂ Contribution ug/m³</u>							
Hadson Power 13 - Hopewell	7.04	6.33	5.94	5.65	5.20	6.20	5.13	5.23
Total Offsets from Aqualon Company Boiler Number 5	2.50	1.48	1.38	3.94	3.29	2.32	5.96	4.06
"Resultant" Hadson Power 13 - Hopewell	4.54	4.85	4.56	1.71	1.91	3.88	--	1.17

(-) Denotes resultant contribution is less than zero.

As shown in the offset resultant contribution summary incorporating short-term 24-hour SO₂ emission credits, Hadson Power 13 - Hopewell has achieved insignificance (less than 5 ug/m³) of 4.85 or less at the above receptor locations where the 24-hour SO₂ NAAQS is exceeded.

SECTION E: AGREEMENT

Aqualon Company agrees that:

1. Aqualon Company will accept, effective October 1, 1991 a 24-hour emission limit for Source Point ID Number 01 (Aqualon Company Boiler Number 5, an Edgemoor boiler rated at 180 MMBtu per hour) of 9,389 pounds per day of sulfur dioxide. The 851 pounds per day of sulfur dioxide reduced from the allowable 10,240 pounds per day of sulfur dioxide from Aqualon Company Boiler Number 5 will be used as an offset for Hadson Power 13 - Hopewell. This sulfur dioxide reduction will be achieved by the following guidelines:

- a. Aqualon Company Boiler Number 5 will combust either natural gas, Number 2 or Number 6 fuel oil, used oil, or liquid waste only.
- b. Oil combusted will not exceed a maximum sulfur content by weight of 2.17 percent and a maximum daily volume of 22,775 gallons.

2. The total reduction of sulfur dioxide from Aqualon Company Boiler Number 5 for use as an OFFSET for Hadson Power 13 - Hopewell is as follows:

	Current Allowable Emissions (lbs/day)	Offset lbs/day	SO ₂ Allowable (lbs/day)	Emission Limit (tons/yr)
Aqualon Company Boiler Number 5	10,240	851	9,389	1,111

3. The maximum sulfur content of the oil to be burned in Aqualon Company boiler Number 5 shall not exceed 2.1 percent by weight, per shipment. Aqualon Company shall maintain records of all oil shipments purchased, indicating sulfur content per shipment. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current three-year period.

4. Aqualon Company shall maintain and keep records containing volume of oil burned in Aqualon Company Boiler Number 5. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current three-year period.

5. The Board may modify, rewrite, or amend this Agreement with the consent of Aqualon Company for good cause shown by Aqualon Company or on its own motion after notice and an opportunity for a hearing.
6. The offset is solely for use by Hadson Power 13 - Hopewell, to obtain approval of their PSD Air Quality Permit. Aqualon Company may be required to further limit their maximum allowable emissions to demonstrate compliance with Ambient Air Quality Standards.
7. The parties hereto waive any objection to the validity of the Agreement, provided that, except for such waiver, no other rights or remedies of Aqualon Company shall be waived under or in connection with this Agreement.
8. This Agreement shall become effective upon execution by the Executive Director. If emission limits for Aqualon Company become more restrictive in the future, such additional emission constraints will have no effect on the offset given to Hadson Power 13 - Hopewell.
9. Nothing herein is intended to or shall make Aqualon Company in any way responsible or liable for the receipt, possession or use by or at Hadson Power 13 - Hopewell cogeneration facility or by any person or party of the said SO₂ offsets or any actions by or on behalf of the owners, operators or beneficiaries of such cogeneration facility regardless of the reason that such Aqualon responsibility or liability is alleged or purported to exist and regardless of whether the matter in question involves property damage, personal injury or death, or violation of application environmental or other laws or regulations.

The forgoing Agreement has been executed on behalf of the STATE AIR POLLUTION CONTROL BOARD of the COMMONWEALTH OF VIRGINIA and on behalf of AQUALON COMPANY, each by its duly authorized representatives, or self, on the dates indicated below.

STATE AIR POLLUTION CONTROL BOARD
OF THE COMMONWEALTH OF VIRGINIA

September 24, 1990
(date)

BY: Wallace N. Davis
Wallace N. Davis
Executive Director

AQUALON COMPANY

September 26, 1990
(date)

BY: James H. Doud
(name and title)
James H. Doud, Plant Manager

COMMONWEALTH OF VIRGINIA
CITY/COUNTY OF HOPEWELL

The foregoing instrument was acknowledged before me this 26th day of September, 1990, by James H. Doud of Aqualon Company, a Delaware partnership between Hercules Credit, Inc., a Delaware corporation, and WSP, Inc., a Virginia corporation on behalf of the partnership.

My Commission expires May 11, 1992

Evelyn S. Moore
Notary Public

