pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0218073**
Facility Type	**Industrial**	APS ID	**1100745**
Major / Minor	**Minor**	Authorization ID	**1461507**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Apollo Resources LLC**	Facility Name	**Scottdale Treatment Facility**
Applicant Address	150 North Avenue	Facility Address	Fenton Road
	Yatesboro, PA 16263		Mount Pleasant, PA 15666
Applicant Contact	Jesse Colangelo	Facility Contact	Michael Bucheit
Applicant Phone	724-783-5035	Facility Phone	724-771-4275 (cell)
Applicant Email	jcolangelo@apolloresourcesllc.com	Facility Email	mbucheit@wpa.net
Client ID	306576	Site ID	558242
SIC Code	1389	Municipality	East Huntingdon Township
SIC Description	Mining - Oil And Gas Field Services, NEC	County	Westmoreland
Date Application Received	November 8, 2023	EPA Waived?	Yes
Date Application Accepted	November 13, 2023	If No, Reason	

Purpose of Application: Renewal NPDES Permit Coverage.

Summary of Review

The Department received an NPDES permit renewal application from Apollo Resources, LLC for coverage of its Scottdale Treatment Facility on November 8, 2023.

The Scottdale Water Treatment Facility is an existing passive water treatment facility for coalbed methane wastewater. The wastewater is generated by the production of coalbed methane gas from a field of 38 coalbed methane wells. Currently only four or five of the wells are pumping and producing. The gas is extracted by dewatering the coal seams with the use of pump jacks which remove the water from the wells. The produced water is then pumped underground through a pipeline system to the Water Treatment Facility. The facility currently has very little to no influent, and thus, no effluent. The discharge valve from the treatment facility has been closed for the last three years. There may be one or two gallons of produced Coalbed Methane Water coming into the facility daily but evaporation offsets the small trickle of water coming into the facility. The wells were drilled in 1996/1997 and over time, less and less water migrates from the coal seams, as a result, there is little, if any, water produced from the field. The site is still receiving and handling wastewater, although very little, and there still exist a potential to discharge the wastewater collected in the treatment ponds, therefore an NPDES permit is still required. If production of the wastewater increases and the need arises for the site to discharge, the permittee should reach out to the Department to determine if a permit amendment is needed.

The Water Treatment Facility consists of two U-shaped settling basins in series. There are no chemical additives, no aeration, and no filtration. The influent flows into the first collection pond which has a treatment capacity of 156,000 gallons with an additional 2 feet of freeboard capacity of 250,000 gallons. The water migrates through the first pond and dumps into a second pond, which has a treatment capacity of 158,000 gallons with an additional 2 feet of freeboard capacity of 267,000 gallons. Total Treatment Capacity is 314,000 gallons. When necessary solid residue is removed from the ponds and sent to approved landfills.

Approve	Deny	Signatures	Date
X		Adam Olesnanik, P.E. / Environmental Engineer	November 30, 2023
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	December 5, 2023

Summary of Review

Effluent from the second pond discharges via gravity flow into a high-density polyethylene tank with a holding capacity of 2,000 gallons. From the tank, the effluent then flows via gravity through a 4-inch PVC pipe, 5,900 feet to Outfall 001. Outfall 001 discharges to Jacobs Creek, designated in 25 PA Code Chapter 93 as a Warm Water Fishery.

The site was last inspected on February 8, 2022; one violation was noted for exceedances of effluent limitations. The violations have been resolved. The permittee has no open violations.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.16
Latitude	40º 06' 20.08"	Longitude	-79º 33' 50.10"
Quad Name	Connellsville	Quad Code	1809
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Jacobs Creek (WWF)	Stream Code	37868
NHD Com ID	69915169	RMI	16.0
Drainage Area	50.2	Yield (cfs/mi^2)	0.023
Q_{7-10} Flow (cfs)	1.16	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1023	Slope (ft/ft)	0.0001
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Westmoreland County Municipal Authority - McKeesport		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	510
PWS RMI	1.33	Distance from Outfall (mi)	41.657

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.16
Latitude 40º 06' 20.08" **Longitude** -79º 33' 50.11"
Wastewater Description: IW Process Effluent without ELG

Technology-Based Limitations

Federal Effluent Limitation Guidelines (ELGs)

While Scottdale Water Treatment Facility does collect and treat connate from multiple wells categorizing it as a centralized waste treatment facility, however, it is not a Centralized Waste Treatment Facility subject to the effluent limit guideline ("ELG") 40 CFR 437. The applicability section of the ELG, 40 CFR 437.1(b), states, "This part does not apply to the following discharges of wastewater from a CWT facility: … (3) Wastewater from the treatment of wastes received from off-site via conduit (e.g., pipelines, channels, ditches, trenches, etc.) from the facility that generates the wastes unless the resulting wastewaters are commingled with other wastewaters subject to this provision." In this case the connate is being generated at the well and then delivered via a conduit (pipelines) to the treatment facility where it is processed and discharged. The connate from individual coal bed methane wells is conveyed to a central wastewater treatment facility. Only coal bed methane production wastewater is accepted; it is not comingled with any other wastes. In other words, Outfall 001 is not subject to 40 CFR 437. Outfall 001 is no longer subject to 40 CFR 435, the Oil and Gas Extraction Point Source discharge ELG as EPA has not promulgated effluent limitation guidelines and standards for pollutant discharges from coalbed methane extraction facilities. EPA had initiated a coalbed methane rulemaking but announced its decision to discontinue this effort in Fall 2014.

Best Practicable Control Technology Currently Achievable (BPT)

The discharge is subject to the provisions in the Oil & Gas Wastewater Permitting Manual ("OGPM"). Chapter IV Section C.1, Minimum Treatment Requirements for NPDES Permits, of the OGPM is in Attachment B. The OGPM stipulates technology based effluent limitations shown in Table 1.

Table 1: **TBELs from the Oil & Gas Wastewater Permitting Manual**

Parameter	Minimum	Average Monthly	Daily Maximum
Total Suspended Solids (mg/L)	-	30	60
Oil and Grease (mg/L)	-	15	30
Iron, Total (mg/L)	-	3.5	7.0
*Acidity (mg/L)	-	Less than Alkalinity	
pH (s.u.)	6.0	-	9.0

Additionally, the OGPM stipulates that the treatment facilities must incorporate the following:

- Flow equalization to ensure optimum treatment efficiency of the facilities and minimization of water quality impacts.
- Gravity separation and surface skimming, or equivalent technology, for oil and grease removal.
- Chemical addition for pH control and metals removal, if necessary (a pH range of 8.0-8.5 is desirable).
- Aeration, or equivalent technology, for reducing volatile petroleum hydrocarbons and oxidation for metals removal.
- Settling (retention) or filtration for removal of solids, including oxidized metals.

*Due to the nature of the limit, in the Draft Permit monitoring for Acidity and Alkalinity will be imposed as well as Effluent Net Alkalinity. The Effluent Net Alkalinity will have a minimum limit of 0.0 mg/L, that way any time the Net Alkalinity value is a positive number, the facility is in compliance. Effluent Net Alkalinity is the difference between the Acidity and Alkalinity.

Chapter 95.10 Total Dissolved Solids Considerations

Outfall 001 is also subject to Chapter 95.10 Effluent Standards for total dissolved solids (TDS). The provisions of Chapter 95.10 were adopted on August 20, 2010 and became effective August 21, 2010. Chapter 95.10 of the Department's regulations establishes the effluent standards applicable to new and expanding discharges of TDS. Under the provisions

of this regulation, dischargers that are subject to the requirements of 95.10 must be identified; discharges that are exempt from any treatment requirements under this chapter must be identified; the existing mass loadings of TDS that are exempt from the treatment requirements must be identified and quantified; and discharges of new and expanding mass loadings of TDS must be evaluated.

Integral to the implementation of §95.10 is the principle that existing, authorized mass loadings of TDS are exempt from any treatment requirements under §95.10. Section 95.10(a)(1) effectively exempts any existing mass loading of TDS up to and including the maximum daily discharge loading for any existing discharge, provided that the loading was authorized prior to August 21, 2010. In addition, §95.10 (a)(7) sets a de minimus threshold value of 5,000 lb/d on an average annual basis, below which DEP will not consider the expanding mass loading as sufficient to trigger the treatment requirements. If there is a net increase in TDS loading of more than 5,000 lb/d above the previously authorized loading, treatment requirements may be required for certain discharges, but the treatment requirements are only applicable for the expanding mass loading (the wastewater associated with the portion of the loading in excess of the existing mass loading, as per §95.10 (a)(1)(ii)).

The discharge from Outfall 001 were authorized and existed prior to August 21, 2010. Therefore, the discharge is considered to be an existing, authorized mass loading of TDS and is exempt from any treatment requirements.

The existing mass loadings of TDS have been designated within Part C III of the current permit, indicating that the average and maximum daily mass loadings to be 18,704 lb/day and 33,327 lb/day, respectively. The site has not discharged in the past three years, as such, the average and maximum mass loadings of TDS did not exceed 5,000 lb/day; therefore, the load is not expanding, and the loading rates will not be reevaluated. Effluent limitations for TDS are not proposed but the TDS Part C condition containing the mass loadings will remain in the permit.

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1)

Effluent standards for oil and grease will be imposed per 25 Pa. Code § 95.2(2)

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code § 95.2(1) as indicated in Table 2.

Table 2: Regulatory Effluent Standards and Monitoring Requirements for Outfall 001

Parameter	Monthly Average	Daily Maximum	Units
Flow	Monitor and Report		MGD
Oil & Grease	15.0	30.0	mg/L
pH	Not less than 6.0 nor greater than 9.0		S.U.

Water Quality-Based Limitations

The site has not discharged in the past three years; thus, no discharge data was collected, and no water quality analysis could be performed. The site does not expect to discharge, but if there were to be a discharge the discharge quality would be expected to be similar or better than what was discharged in the past as the volume was wastewater that is received at the facility has drastically decreased.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed in Table 3 below.

Table 3. Existing Effluent Limitations

Parameters	Average Monthly (lbs/day)	Daily Maximum (lbs/day)	Minimum (mg/L)	Average Monthly (mg/L)	Daily Maximum (mg/L)	Instantaneous Maximum (mg/L)	Measurement Frequency	Sample Type
Flow (MGD)	Report	0.16	XXX	XXX	XXX	XXX	Daily when Discharging	Measured
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Selenium	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab

Table 3. Existing Effluent Limitations

Parameters	Average Monthly (lbs/day)	Daily Maximum (lbs/day)	Minimum (mg/L)	Average Monthly (mg/L)	Daily Maximum (mg/L)	Instantaneous Maximum (mg/L)	Measurement Frequency	Sample Type
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30	60	XXX	2/month	Grab
Total Dissolved Solids	Report	Report	XXX	Report	Report	XXX	2/month	Grab
Bromide	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Chloride	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Sulfate	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15	30	XXX	2/month	Grab
Total Acidity	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Alkalinity	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Alkalinity (Effluent Net)	XXX	XXX	0.0	XXX	XXX	XXX	2/month	Calculation
Dissolved Iron	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Iron	XXX	XXX	XXX	3.5	7.0	XXX	2/month	Grab

Final Effluent limitations

Final effluent limitation and monitor requirements for Outfall 001 are displayed below in Table 4.

Table 4. Proposed Effluent Limitations

Parameters	Average Monthly (lbs/day)	Daily Maximum (lbs/day)	Instant. Minimum (mg/L)	Average Monthly (mg/L)	Daily Maximum (mg/L)	Instantaneous Maximum (mg/L)	Measurement Frequency	Sample Type
Flow (MGD)	Report	0.16	XXX	XXX	XXX	XXX	Daily when Discharging	Measured
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Selenium	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	30	60	XXX	2/month	Grab
Total Dissolved Solids	Report	Report	XXX	Report	Report	XXX	2/month	Grab
Bromide	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Chloride	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Sulfate	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15	30	XXX	2/month	Grab
Total Acidity	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Alkalinity	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab

Table 4. Proposed Effluent Limitations

Parameters	Average Monthly (lbs/day)	Daily Maximum (lbs/day)	Instant. Minimum (mg/L)	Average Monthly (mg/L)	Daily Maximum (mg/L)	Instantaneous Maximum (mg/L)	Measurement Frequency	Sample Type
Alkalinity (Effluent Net)	XXX	XXX	0.0	XXX	XXX	XXX	2/month	Calculation
Dissolved Iron	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Iron	XXX	XXX	XXX	3.5	7.0	XXX	2/month	Grab

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

Attachments

Attachment A: USGS Stream Stats Data

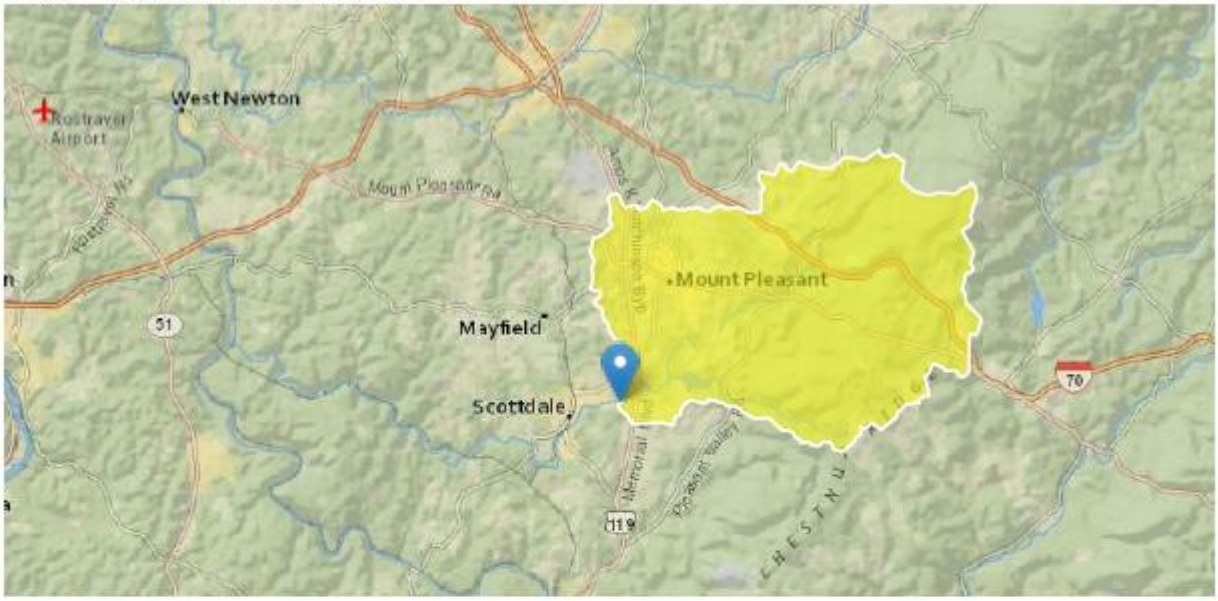
Attachment B: Chapter IV Section C.1 of the Oil & Gas Wastewater Permitting Manual

Attachment A:

USGS Stream Stats Data

StreamStats Report

Region ID: PA
Workspace ID: PA20231129193049374000
Clicked Point (Latitude, Longitude): 40.10529, -79.56391
Time: 2023-11-29 14:31:12 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	50.2	square miles
ELEV	Mean Basin Elevation	1488	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [100.0 Percent (50.2 square miles) Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	50.2	square miles	2.26	1400
ELEV	Mean Basin Elevation	1488	feet	1050	2580

Low-Flow Statistics Flow Report [100.0 Percent (50.2 square miles) Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.91	ft^3/s	43	43
30 Day 2 Year Low Flow	4.74	ft^3/s	38	38
7 Day 10 Year Low Flow	1.16	ft^3/s	66	66
30 Day 10 Year Low Flow	1.89	ft^3/s	54	54
90 Day 10 Year Low Flow	3.35	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.18.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment D:

Chapter IV Section C.1 of the Oil & Gas Wastewater Permitting Manual

C. Determination of Wastewater Treatment Requirements

The effluent limits developed and included in a NPDES permit may be either water quality-based or technology-based, the result of a "best management practices" approach to controlling or abating a pollution problem, or a combination of any or all of the above.

The treatment and discharge of wastewater from oil and gas well drilling, stimulation, and production activities to surface waters is permissible, subject to the legal and technical considerations described as follows:

1. Minimum Treatment Required

All oil and gas well wastewater discharges must be treated or managed in such a way as to not violate the existing uses of the receiving stream, which are identified in Chapter 93 of the Department's Rules and Regulations.

NPDES permits may not be issued for discharges to "High Quality" or "Exceptional Value" waters (also identified in Chapter 93) unless a finding has been made by the Department that the antidegradation requirements in Chapter 93 of the Department's Rules and Regulations have been satisfied. Further discussion involving "Special Protection" waters is included in the next subsection.

Chapters 78 and 95 of the Rules and Regulations address several requirements pertaining to treatment and discharge of wastewaters. Section 95.2(c) specifies the minimum level of treatment required for waste discharges as that defined by EPA under the Federal Water Pollution Control Act (33 U.S.C.A. §§ 1311, 1314 and 1342), or in absence of the minimum treatment defined by EPA, an equivalent degree of treatment or technology as determined by the Department.

EPA has established technology-based effluent limitation guidelines for certain subcategories of the oil and gas extraction industry as noted in 40 CFR 435. Subpart C of these guidelines, which relates to the Onshore Subcategory, prohibits the discharge of produced fluids from oil and gas well drilling, stimulation, and production activities to surface waters. The only apparent exception to this prohibition is identified by Subpart F, which pertains to "stripper" oil wells (i.e., those wells producing 10 barrels or less of crude oil per day and which do not produce natural gas in excess of 15,000 cubic feet of gas per one barrel (42 gallons) of petroleum liquids). Discharges from these wells can be covered under a general permit (see Chapter V).

At this time, technology-based effluent limitations guidelines do not exist for Subpart F, although EPA is currently reviewing portions of this category in order to establish new guidelines. Thus, since "stripper" oil wells are not subject to the "no discharge" requirement, individual "stripper" well discharges may be permitted where circumstances warrant utilizing, at a minimum, the technology-based effluent limitations established by the Department.

Discharges of wastewaters to surface waters from oil and gas well operations may be approved under NPDES permits if the wastewaters are removed to an "off-site" treatment facility, provided the discharge will meet all the requirements discussed above. The term "off-site" includes:

a. A central wastewater collection and treatment facility associated with a multiple-well operation.
b. A wastewater treatment facility owned and operated by another party or group of operators.

NPDES permits will contain technology-based effluent limitations at least as stringent as the following:

Parameter	Average Monthly (mg/L)	Instantaneous Maximum (mg/L)
Total Suspended Solids	30	60
Oils and Grease	15	30
Iron, Total	3.5	7.0
Acidity	Less than Alkalinity	

pH	6 to 9 Standard Units

The design of the treatment facilities must incorporate the following:

a. Flow equalization to ensure optimum treatment efficiency of the facilities and minimization of water quality impacts.

b. Gravity separation and surface skimming, or equivalent technology, for oil and grease removal.

c. Chemical addition for pH control and metals removal, if necessary (a pH range of 8.0 - 8.5 is desirable).

d. Aeration, or equivalent technology, for reducing volatile petroleum hydrocarbons and oxidation for metals removal.

e. Settling (retention) or filtration for removal of solids, including oxidized metals.

More stringent or additional limitations on other parameters (e.g., total dissolved solids, specific conductance, osmotic pressure, heavy metals, organics, etc.) will be imposed as needed to protect the water quality of the receiving stream, or to serve as indicators of the effectiveness of the treatment facilities.

Multiple discharges may be covered under a single NPDES permit, if the management of those facilities is under the control of one owner/operator and the geographic area is small enough to allow for effective operation and monitoring of the facilities.