

**DEP, DWPC, WASTEWATER RESIDUALS
GUIDANCE DOCUMENT NO. 94-1**

**DWPC POLICY ON THREE MINIMUM CONTRACTUAL
REQUIREMENTS FOR REUSE OR DISPOSAL OF RESIDUALS FROM LARGE
PUBLICLY OWNED TREATMENT WORKS (POTWs)**

Approved by DEP Commissioner 7/11/94

This Residuals Disposal Policy amends the Department's January 4, 1984 Policy on the Redundancy Requirements for Sludge Disposal by incorporating minimum acceptable criteria for large publicly owned treatment works (POTWs) seeking to utilize contractual arrangements as a means of addressing either their long-term primary method and/or their backup or redundant method of reuse or disposal. For purposes of this policy the term "large publicly owned treatment works" shall mean those POTWs who treat an average daily flow (ADF) of wastewater equal to or greater than 20 million gallons per day (mgd) and/or those facilities which treat less than 20 mgd but accept residuals for processing from other wastewater treatment facilities where the combined average daily flow of all facilities is greater than or equal to 20 mgd. This policy does not remove the need for facilities treating less than 20 mgd to identify and implement a reliable and environmentally sound long-term residuals management plan in compliance with the Department's redundancy requirements as set out in the above 1984 policy.

Background

Reliable and environmentally sound long-term and emergency backup residuals facilities are critical to the successful operation of a wastewater treatment facility as well as for maintaining compliance with its discharge permit limitations. In order to assure reliability and immediate accessibility for residual processing, residuals treatment or disposal facilities were generally designed, constructed and operated directly by the POTW. Funding for these projects was typically provided through federal and state grant assistance as well as a proportionate amount of local funds.

Since 1984 many changes have occurred affecting residuals management particularly the significant reduction in Federal funding for POTWs and increased difficulty in obtaining local funds. These changes have contributed to a significant growth in the commercial reuse and disposal market. Many large facilities are now exploring and proposing to utilize this expanded commercial market to manage their long-term and/or emergency residuals treatment and disposal needs. Of course with this shift comes an entirely new set of concerns directly associated with the long-term reliability of the commercial market to meet these needs. These changes have necessitated a revision to the Department's residuals management requirements in order to allow greater flexibility in decision making at the local level as well as to ensure the ability of large facilities to maintain uninterrupted disposal of their residuals. The latter issue is particularly important for large POTWs because of their large daily production of

residuals and a lack of significant on-site storage capability to effectively manage potential delays or loss of the commercial market for an extended period of time.

In recognition of these needs, an apparent increase in the commercial market providing reliable and environmentally sound long-term and emergency treatment and disposal capacity, and to compensate for the variability of the commercial marketplace over the 20 year design life of the POTW, the Division of Water Pollution Control has developed the following minimum requirements for contractual arrangements when used as a means of primary treatment/disposal, back-up treatment/disposal and/or in combination with POTW owned and controlled facilities, for residuals generated at large POTWs.

POLICY

A. Implementation

This policy shall be effective immediately upon signature of the Acting Deputy Commissioner for Policy and Program Planning and the Commissioner of DEP. The Policy shall be applied when any of the following actions occur.

1. When a POTW has requested grant and/or loan assistance through the Bureau of Municipal Facilities.
2. When an enforcement action has been initiated by the Department or on behalf of the Department by the Office of the Attorney General, by the U.S. Environmental Protection Agency, or the U.S. Department of Justice.
3. When the POTW requests Division approval for plans and specifications, in accordance with 314 CMR 12.03, to make major physical modifications to existing wastewater treatment facilities or for modifications that may significantly affect treatment efficiency.

Nothing in this policy shall prevent an existing POTW, which is currently operating, from entering into an interim or short-term contractual arrangement with an approved residuals reuse or disposal facility in order to comply with its discharge permit limits or operations requirements pending evaluation and resolution of its long-term residuals management and backup redundancy planning.

B. Acceptable Alternatives

Table I provides a matrix of primary and backup reuse and disposal options acceptable to the Department. It should be noted that additional alternatives and/or combinations of alternatives for both the primary and backup methods of residuals management may be approvable by the Department provided a demonstration can be made that the alternative(s) proposed provide an equivalent degree of environmental protection and dependability to those identified in the matrix. In addition, preference should be given to alternatives and technologies which provide for beneficial use of the final product whenever feasible and appropriate.

Two distinct types of facilities have been identified by the Department in Table I, each with several potential sub-options for providing redundancy. Category I facilities are those which own, control, and operate their primary method of residuals reuse or disposal. Category II facilities are defined as those POTWs wishing to enter into long-term contractual arrangements for their primary method (20 year) of residuals management. Both arrangements are acceptable to the Department provided all other provisions of this policy can be adequately demonstrated, including incorporation of a reliable backup disposal option.

There are several backup or redundancy methods acceptable to the Department identified in the matrix. For Category I facilities, where the POTW owns and controls its primary method of residuals treatment and/or disposal, redundancy is necessary in the event of process failure or unacceptable adverse impacts to the public health or welfare due to continued operation of the facility. For Category II facilities, where the POTW contracts for primary reuse/disposal services, it is necessary in case of contract default. The options available for providing redundancy range from designing, constructing, and operating a backup residuals facility which would be under the POTWs direct control to utilizing an addition contractual arrangement to provide these services. Also, because of the inherent uncertainties of the future commercial market to provide the necessary capacity, the Department is requiring that all large POTWs wishing to enter into secondary contracts for backup purposes also proceed with all the necessary environmental reviews, siting procedures (including site acquisition), design plan approvals, and permitting for a backup residuals facility to be owned/controlled by the POTW in order that construction may begin immediately if deemed necessary by the Department. In addition, because this backup facility may be needed at some point in the distant future the Department will require that all permits and approvals be maintained and that a series of “triggers” be developed and agreed to which identify the process for consultation and decision making relative to the need to construct the backup facility.

C. Use of a Contract for a Primary Treatment or Disposal Method

DEP/DWPC will accept proposals to enter into contractual arrangement(s) as the primary means of residuals treatment and/or disposal for large POTWs if all of the following conditions can be met.

1. A demonstration must be made to the Department that the vendor(s) chosen possess sufficient financial and technical capability for the proper transportation, treatment and/or disposal of all of the residuals generated at the POTW, including but not limited to, sewage sludge, sewage sludge ash, scum, grit, and screenings, for the entire 20 year period.

No deviation from this requirement will be allowed unless the POTW documents that a) all reasonable efforts to contract for capacity for the entire 20 year duration have been made and cannot be reasonably obtained, b) that the proposed alternative plan provides an equivalent degree of environmental protection and dependability to those identified in the matrix, and c) the Department and the POTW owner(s) agree to an alternative plan through the institution of an enforceable document that provides a mechanism to implement a solution for the remainder of the full design period if a 20 year solution is not feasible.

2. Demonstrated capability, as described in paragraph 1, shall include at a minimum:
 - a. a positive demonstration that the vendor has all necessary Federal, State, and local permits/approvals to accept, treat, or dispose the residuals at the time of contract award.
 - b. a demonstration that constructed and operation capacity exists or will exist to treat/dispose residuals by the time the POTW's treatment facilities have been expanded or upgraded. Said demonstration shall include, but not necessarily be limited to, an evaluation by the vendor of dedicated capacity for residuals generated from other facilities currently under contract or expected to be under contract prior to contract implementation with the POTW seeking services, as well as any other terms and conditions which could result in a shortfall of capacity to transport, treat or dispose of the residuals generated by the POTW proposing to contract for services.
 - c. a demonstration, to DEP's satisfaction, that the vendor possesses the financial capability to ensure continuous and uninterrupted treatment or disposal.
 - d. a demonstration that the vendor has a permitted method of disposition for any by-products of its treatment or disposal process.
3. If the above conditions can be met to the satisfaction of the Department then the Department will allow execution of a contractual arrangement(s) as a primary means of disposal. The primary contract(s) must be for a minimum term of 5 years with optional extensions of three additional five year terms. Each primary contract must be renewed or replaced by a new contractual arrangement with the

conditions set forth above no later than one year prior to expiration of the contract in place and the new treatment/disposal option(s) must be operational and accessible immediately upon termination of the previous contract.

D. Use of a Contract for the **Backup** Treatment or Disposal Method

1. In addition to the above, redundancy must be provided through construction of a backup facility under the POTW's direct control or through execution of a backup contractual arrangement(s). If redundancy is provided through a backup contract(s) the following provisions shall apply.
 - a. The POTW must also complete all required environmental reviews, siting procedures (including site acquisition), design plan and specification approvals, and permitting of a backup residuals facility which could be constructed at a future date, if deemed necessary by the Department, as a result of loss of the primary and/or backup contract and the inability to replace said contract within a reasonable amount of time. All necessary approvals and permits must be maintained on a continuous basis to comply with existing Federal, State, and local requirements so that bidding, procurement, and construction of backup facilities can begin immediately with the loss of primary and/or backup contractual disposal options and be completed within a reasonable period of time.
 - b. The backup contract(s) must also be executed with a minimum 5 year term and must contain provisions for the proper treatment and disposal of all residuals generated during a period of time equal to that necessary for the POTW to seek and execute a new primary contract(s) and to complete construction activities for a facility under their direct control. In no case can the backup capacity provided in the contract(s) be less than 6 months of the generated volume.
 - c. The backup contract(s) must be capable of providing immediate transportation and disposal of all residuals in case of failure of the primary treatment/disposal option utilized.
 - d. The POTW must also develop necessary "consultation" and "action" triggers, in conjunction with DEP and other relevant parties. Those triggers must identify the consultation and decision making process in the event of a loss of or significant change to either the primary or backup disposal contracts methods.

Approved By: signed
Arleen O'Donnell,
Acting Deputy Commissioner for Policy
and Program Planning

Date: 7-7-94

Approved By: signed
Thomas Powers,
Acting Commissioner

Date: 7-11-94

**Table 1. Residuals Reuse/Disposal Options Matrix¹
for Large Publicly Owned Treatment Works**

OPTIONS	CATEGORY I ²		CATEGORY II ³		
	1	2	1	2	3
PRIMARY Method of Reuse or Disposal	O	O	C	C	C
			* Secure 20 years of residuals disposal capacity	* Demonstration that 20 years of residuals disposal capacity exists with the vendor(s) of choice * Contracts must be implemented in increments greater than or equal to 5 years.	* Demonstration that 20 years of residuals disposal capacity exists with the vendor(s) of choice * Contracts must be implemented in increments greater than or equal to 5 years.
BACKUP	O&B	C ⁴ &D	O&B	O&B	C ⁴ &D
TRIGGERS⁵	NO	YES	NO	NO	YES

1. This table provides a matrix of acceptable alternatives and options and combinations thereof for the primary (20 year) reuse or disposal method and backup/redundant methods. The Department will consider alternative proposals and may approve them provided a demonstration can be made by the POTW that the proposed alternative provides an equivalent degree of environmental protection and dependability.
2. Category I - The POTW owns and controls its primary method of treatment/disposal.
3. Category II - The POTW contracts for its primary method of treatment/disposal.
4. Contractual arrangement for all residuals generated during a period of time equal to that necessary for the POTW to seek and execute a new primary contract (if applicable) and complete construction of a backup facility under their direct control (minimum of 6 months capacity).
5. Consultation and action triggers required.

Legend:

- O - POTW Constructed, Owned and Controlled
- C - Contractual Arrangement
- B - POTW Construction of a Backup Residuals Landfill
- D - POTW Designed and Permitted Backup Residuals Landfill, actual construction deferred to a later date based upon the availability and dependability of the commercial market.