

**CHEROKEE NATION LONG-TERM STEWARDSHIP INITIATIVE
A NEW APPROACH TO LONG-TERM STEWARDSHIP AND SITE MANAGEMENT**

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ABSTRACT

Since the United States realized that various types of natural resources potentially could provide the public with sources of valuable materials, industry has struggled with maintaining the delicate balance between ensuring that these benefits are realized and assuring the public that their surrounding environment will not suffer undue and irreparable harm. As a result, industry licensees, whose sites are utilized for varying periods of time to create these beneficial materials, must, in turn, remediate the contamination at these sites to allow for some future use or to isolate and contain such contamination so that the public may be protected. One set of industry licensees, those licensed by the Nuclear Regulatory Commission (NRC), often are faced with difficult decisions because of the complex nature of contaminants present at their sites (i.e., radiological and hazardous) and the enormous costs associated with the remediation of such contaminants. Prior to 1998, these decisions were decidedly more difficult to make because the only remediation option available to a licensee was *unrestricted release* or release of their sites for any future use (e.g., residential, commercial/industrial, recreational). However, with the advent of a relatively new remediation option, *restricted release* or release of a site for a selected future use with appropriate site controls, NRC licensees now have the opportunity to avoid potentially astronomical remediation costs and to protect the public from residual contamination left at their sites. But, despite the best efforts of NRC and its licensees, the implementation of *restricted release* criteria has been unsuccessful. This fact was acknowledged by former NRC Chairman Richard Meserve in 2002 as an important issue that should be addressed quickly and efficiently.

While Chairman Meserve's point was well-taken, the obstacles to successful implementation of *restricted release* criteria still remain unaddressed. Since such criteria have not been successfully implemented, NRC licensees are still faced with the prospect of remediating their sites for *unrestricted release*. Yet, in response to the need for a comprehensive solution to this issue, the Strider Group and Cherokee Nation Enterprises (CNE) have created a new and innovative approach to the problems associated with *restricted release* which potentially may revitalize a licensee's approach to decommissioning and final site closure. In order to better understand this new approach, it is important to understand NRC's *restricted release* criteria and the obstacles which, up to this point, have prevented such criteria from being implemented successfully.

THE EVOLUTION OF NRC'S RESTRICTED RELEASE CRITERIA

Prior to the creation of its *restricted release* criteria, NRC licensees were forced to remediate their contaminated sites for *unrestricted release* so that the site may be used for any purpose after license termination. In some cases, licensees did not experience any difficulty in meeting *unrestricted release* criteria because the types of contamination present at their sites involved only tailings for mining processes which could be shipped off-site. In many other cases, licensees experienced extreme difficulty in meeting *unrestricted release* criteria for a variety of reasons. First and foremost, NRC's 10 CFR Part 20 *unrestricted release* (and, for that matter, *restricted release*) criteria is an "all-pathways" dose standard. That is, when calculating the dose associated with an NRC-licensed site, a licensee must

account for contamination in all potential pathways at the site (i.e., ingestion, inhalation, groundwater, etc.). Second, to meet *unrestricted release* criteria, a licensee must demonstrate that the site meets the above-mentioned dose standard and that any residual contamination left on-site does not require the use of institutional controls (e.g., deed restrictions) or engineered barriers (e.g., slurry walls, perimeter fencing) to prevent doses to the public of greater than the site closure standard (now 25 mrem) or migration of contamination off-site such as through groundwater. Third, because of the “all-pathways” approach and the various types and forms of radiological and hazardous materials present at some sites, licensees are faced with multiple forms of contamination which may not necessarily be easily remediated using inexpensive or efficient technologies or services. Taken together, these factors create a nearly insurmountable remediation problem for NRC licensees that, in many cases, led to bankruptcy for the licensee and no custodian for the site other than NRC or a State.

In response to this dilemma, NRC created 10 CFR Part 20, Subpart E (10 CFR § 20.1403 *et seq.*) to allow licensees to release their sites for *restricted release*. Under this set of criteria, NRC licensees must demonstrate that: (1) the residual contamination left on-site associated with proposed restricted conditions are ALARA, (2) the licensee has made provisions for legally enforceable institutional controls to ensure that the dose to a member of the critical group (resident, worker, etc.) is not in excess of 25 mrem above background, and (3) the licensee has secured sufficient financial assurance so that a third-party may act as the long-term custodian of the site. With respect to the third requirement, the selected long-term custodian must: (1) be capable of physically and financially enforcing institutional controls, (2) be capable and durable enough to adequately maintain record for up to 1,000 years, (3) be able to establish, manage, and support a durable legal and financial instrument, (4) be capable of legally restricting site access and enforcing such restrictions, (5) be durable enough to maintain, record, and re-record such restrictions for 1,000 years, and (6) be able to qualify for long-term care and control of the site. In addition, the third requirement carries with it the need for adequate financial assurance so that the selected long-term custodian may properly conduct long-term site management and control activities such as maintenance of site barriers, enforcement of institutional controls, and emergency remediation should the need arise. This third requirement (a qualified long-term custodian and adequate financial assurance) have been the primary “stumbling blocks” for NRC licensees in their attempts to successfully implement *restricted release* criteria at their sites.

Over the past decade, many NRC licensees have attempted to implement *restricted release* criteria at their sites only to find that such implementation is unlikely to occur. While licensees were attempting to implement these criteria, they were met with opposition from various groups ranging from state agencies to environmental groups and local members of the public. The theme underlying the concerns of these groups was that no long-term custodian existed for sites qualifying for *restricted release* and that adequate financial assurance was not available. However, using the comprehensive approach created by the Strider Group, which will be discussed in greater detail below, licensee may feel free to pursue a *restricted release* option if such an option is practical and cost-effective.

THE STRIDER GROUP APPROACH

Cherokee Nation Industries: A Durable Long-Term Custodian

While there are many different issues that must be addressed when determining whether *restricted release* is a viable option for an NRC licensee, one of the two main concerns is the lack of a durable long-term custodian to oversee the stability and integrity of a given site. As stated above, according to NRC's *restricted release* criteria, a long-term custodian must be capable of overseeing the management and enforcement, both legally and substantively, of the institutional controls and/or engineered barriers that are required for *restricted release*. Practically, this requirement makes sense because an entity that is not capable of enforcing such long-term controls may allow such controls to lapse or fail in a way that poses a

threat to public health and safety. In addition, such long-term custodian should be skilled in environmental remediation and be capable of maintaining adequate records for the closure period of 1,000 years, all of which are difficult requirements to fulfill.

While it has been possible for NRC licensees to propose potential long-term custodians for their sites, it has been extremely difficult for licensees to propose custodians which will not involve some kind of “turnover” rate during the site closure period. For example, corporations are not guaranteed to be in existence for the entire site closure period. Even the biggest companies in the world are at the mercy of traditional economics and business practices, and any combination of poor personnel decisions, bad business practices or even simple market trends could drive such companies out of existence forever. A corporation that serves as a long-term custodian for a *restricted release* site runs the risk of disappearing in a matter of months and, thus, leaving the public with no one to turn to in the event of an environmental crisis. Other companies such as banks, holding houses or other financial institutions also may seem like viable alternatives, but such institutions are subject to the same fragile existence that other for-profit corporations must endure. Even a teaming arrangement of entities of this sort with environmental remediation companies and/or technical service providers provides no guarantee that such an arrangement would be durable enough to withstand the site closure period of 1,000 years or, for that matter, even one half or one quarter of that time period. Thus, the private sector does not appear to present any viable options.

After exhausting all options in the private sector, the last source for potential long-term custodians is the government. Based on past events, it appears that State and local governments appear unwilling to serve as long-term custodians because of a variety of issues including the availability of adequate financial assurance. While some States have attempted to implement financial assurance mechanisms that would guarantee the presence of funds for remediation and long-term site management and control, these attempts have not remedied the burden of finding a long-term custodian sufficient enough to enforce and manage institutional controls and engineered barriers.

But, while the government has not yet provided a willing, viable candidate for the role of long-term custodian, the Strider Group has created a new alternative. The Cherokee Nation, a federally-recognized Native American tribe, and its wholly-owned subsidiary company CNE, have indicated that they are willing to serve as a candidate for long-term custodian of sites qualifying for *restricted release* or for potential transfer to the Department of Energy (DOE) under Sections 151(b) and 151(c) of the Nuclear Waste Policy Act. As an entity wholly-owned by the Cherokee Nation, CNE enjoys the benefit of being associated with a long-lived, governmental entity which has survived for hundreds of years. Unlike other privately-owned corporations, CNE is not affected by traditional economic factors which potentially may cause such corporations to disappear quickly and leave *restricted release* sites without a custodian. Thus, should a licensee determine that *restricted release* is a viable option for their site, CNE can provide relevant stakeholders (i.e., members of the public, State and local governments) with assurances that they will be available for the entire 1,000 year site closure period.

CNE, in conjunction with the Strider Group and other potentially relevant environmental firms, also possesses the resources necessary to ensure that all long-term site management and control activities are carried out in a manner that is protective of public health and safety. The control and maintenance of engineered barriers is a sensitive issue for regulators and members of the public likely because the failure of such barriers could result in trespassers gaining access to the site and receiving an undue dose. In some cases, failure of an engineered barrier such as a slurry wall or a disposal cell could result in releases of substantial amounts of contaminated material to local groundwater supplies which, for small communities, could be catastrophic. A long-term custodian such as CNE is capable of responding

quickly to failures of engineered barriers in a manner which will prevent any undue harm to members of the public and can utilize its vast resources to react quickly instead of being subject to appropriations from State or federal sources.

The other required field that CNE can provide more than adequate support for as long-term custodian is the management and enforcement of institutional controls. Management and enforcement of institutional controls is a relatively new and, in some cases, unexplored area of law. Many potential scenarios exist that could cause harm to members of the public as a result of the failure to properly implement, maintain, and enforce institutional controls. For example, many institutional controls prohibit the drilling of wells for use of water for drinking purposes because residual contamination still exists on areas of the site where a contaminated plume may be present or, in many cases, new technologies are available to immobilize a plume in place. Disturbance of an area of contamination by drilling water wells potentially could reactivate the flow of contaminants into drinking water and cause such contamination to be ingested by local residents. Due to this heightened risk, institutional controls are designed to prevent such actions from taking place and, should such a control not be properly records with local authorities or enforced by the long-term custodian, increasing numbers of residents might be harmed. As long-term custodian, CNE possesses the capability to ensure that all institutional controls are enforced in courts of local jurisdiction and that all such controls are maintained to the satisfaction of appropriate regulatory authorities (i.e., NRC, Environmental Protection Agency (EPA), State and local government agencies). CNE and the Strider Group both can provide *restricted release* licensees and relevant regulatory authorities with the legal and regulatory expertise to ensure that all institutional controls are maintained and enforced in a prompt and effective manner.

CNE also enjoys the benefit of being sufficiently long-lived to control the outsourcing of site management and control activities in a manner that ensures consistency and unified purpose of protecting public health and safety. The Cherokee Nation has a long history of environmental stewardship in the United States [KEITH FILL IN PAST EXPERIENCE].

The Trust Concept: “Assured” Financial Assurance

As shown above, CNE and the Cherokee Nation, along with the Strider Group, can effectively serve as long-term custodian under NRC’s requirements for *restricted release* and can provide State and local governments with assurances that *the same* long-term custodian will be available for the entire 1,000 year site closure period. Now, the second major “stumbling block” in the effort to successfully implement *restricted release* criteria at contaminated sites is financial assurance.

For the past several years since the creation of *restricted release* criteria, interested stakeholders have noted that no financial assurance mechanism existed where it could be guaranteed that, should remedial or maintenance action need to be taken at a *restricted release* site, prompt action could be taken to complete such action. Generally, sites under the custody of privately-owned or managed corporations would receive funding for long-term site management and control and have to manage such funds in a way that ensured that the corporation would improve its bottom line. In addition, should the corporation file for bankruptcy or suffer otherwise severe financial difficulties, the funding originally allocated for long-term control and management might be subject to collection actions by the corporation’s creditors or other interested parties. Thus, members of the public would be left with no funding for site management and control.

With respect to governmental entities, while they are sufficiently long-lived to act as a long-term custodian, several problems still exist in the realm of financial assurance. First, the federal government and many state governments have versions of what is called the Miscellaneous Receipts Act. For these governmental entities, all monies given to their regulatory agencies including DOE and State radiation

protection boards must be deposited in the General Treasury of the United States or the respective state treasury so that members of the legislative branches of each jurisdiction may appropriate such funds to each relevant agency as part of the fiscal year budget. Based on this, the agencies responsible for long-term site management and control run the risk of not receiving the exact funds allocated for long-term oversight for political or other reasons. This issue plays a crucial role for long-term custodians because the funds contributed for long-term oversight are required to be site-specific and, should the estimated funds not be made available for use, the custodian may not be able to act accordingly in response to the needs of the site. Further, it is possible that an unforeseeable “catastrophic event” may occur at a given site at any given time that may require more than what federal or State governments consider “annual funding” for maintenance and oversight. If the entire amount of funding provided by the licensee or other entity is not made available to the long-term custodian, then the custodian cannot act quickly enough to respond to such a catastrophic event. Instead of acting quickly, the custodian would be forced to wait until an “emergency appropriation” from the legislative branch was requested, approved, and appropriated. Even slight time delays could lead to significant releases of contamination off-site and considerable harm to the public.

So, the question that remains to be answered is as follows: how do you combine the benefits of a long-lived governmental entity as long-term custodian and avoid the trials and tribulations of the governmental appropriations process. The answer to this question is a trust.

A trust can provide a mechanism to assure that the funds necessary to perform long-term site management and control activities will be readily available over the required 1,000 year site closure period. Trusts are financial mechanisms that have been used across a broad scope of activities ranging from management of funds in probate matters to environmental remediation matters. NRC presently relies on trusts to earmark funds for license termination activities. More specifically, NRC uses *stand-by* trusts to maintain financial assurance for site D&D activities in the event that a licensee should be unable to fulfill license and regulatory requirements (e.g., a licensee goes bankrupt). The amount of financial assurance is based on NRC-approved estimates of reclamation and decommissioning costs.

When a surety bond or other financial instrument is called due to default or bankruptcy of the licensee, the funds are transferred directly into the stand-by trust. Subsequently, the trustee, whose duties and authorities are described with specificity in the trust document, may then, with NRC oversight, hire independent contractors to perform D&D functions leading to license termination. While NRC is the beneficiary of the trust, the agency receives no funds from the trust. Expenditures are made by the trustee from trust assets without any requirement for a Congressional appropriation. Thus, in this case, the trustee and the beneficiary are not subject to the Miscellaneous Receipts Act (or the State equivalent) and can utilize earmarked funds to provide assurance that funding will be available over the necessary time frame.

A trust, which is a legal instrument through which different types of transferable property interests are managed for a particular purpose, can be created to be essentially as long-lived as the governmental entity serving as a long-term custodian. Trusts rely on the existence of a government of laws. If no such government exists, then neither a trust nor the government itself will be able to function as a long-term custodian. The trust instrument names a specific trustee and beneficiary and sets forth the specific purposes for which the trust's assets will be utilized. These “trust purposes” are the primary and sole responsibility of the trustee when managing the trust assets including allocating the funds for the specific benefit of the beneficiary. In addition to the careful description of trustee responsibilities in the trust instrument, a beneficiary is protected by the strict “fiduciary duty” imposed on the trustee to strictly adhere to the trust purposes. This elevated level of legal responsibility serves as a sort of “insurance policy” to prevent mismanagement of the trust assets. Another benefit of trusts is that, as long as its purposes are lawful, the trust instrument can be molded to fit the specific needs of the creator of the trust.

Finally, the trust will specifically provide for appointment of successor trustees to assure the long-term viability of the trust for LTS purposes.

Using a trust to provide long-term financial assurance could provide several valuable benefits to a long-term custodian. First, funds earmarked for D&D and LTS activities placed in a trust may be able to be utilized without the necessity of going to Congress each fiscal year to obtain authorization and appropriation of necessary funds. There may be some question whether DOE as the owner of the site and beneficiary of the trust can benefit from the trust and avoid the reach of the Miscellaneous Receipts Act. One potential answer to this question could be for DOE to accept custody of the wastes but not title to the property. Certainly accepting custody of the wastes could hardly be described as “public monies.” Another answer may be to transfer title and custody to the trust as was done with the Atlas Moab, Utah uranium mill tailings site, but still retain DOE as the beneficiary with NRC-like regulatory responsibilities for the site. Still another potential answer may be to transfer title and custody to the site into a trust upon completion of site reclamation and license termination and then have NRC issue a general license to the trust as the long-term custodian for LTS activities. This latter option would essentially mirror the UMTRCA statutory model wherein DOE is issued a general license as the long-term custodian for Title II sites. Under this scenario, DOE would not necessarily have to be involved at all, but the trust as licensee could be a more attractive alternative as a long-term custodian than a commercial entity licensee with a perpetual NRC license. Since the statutory model (i.e., UMTRCA Title II) already exists for such an approach, this option should be more fully explored by NRC, its licensees and DOE.

Second, the trustor, in conjunction with the long-term custodian and other interested entities, including the beneficiary can be directly involved in constructing the trust document to assure agreement on the trust purposes including specifically how funds will be allocated and managed.

Third, the trustee’s liability can be strictly limited to the assets placed in the trust, otherwise, finding a trustee might be impossible.

Fourth, investment of the fund’s assets can be limited to government guaranteed financial mechanisms to assure the funds will be available over the long-term.

Fifth, public health and safety and the environment will directly benefit because funds will be readily available to address any site-specific problems that arise which could threaten public health or the environment. Thus, the utilization of trusts to provide long-term financial assurance for LTS activities should be intensively explored as they may be able to provide agencies like DOE with the ability to fulfill the mandate to assume ongoing protection of public health and safety and the environment as a long-term custodian.