

Article

# Procedural aspects of civil liability for nuclear damages in UAE law

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**Abstract:** This study addressed the procedural aspects of the claim for civil liability for nuclear damage in accordance with the newly promulgated Law on Civil Liability for Nuclear Damage No. 4 of 2012 of the United Arab Emirates and the Vienna Convention. The study was divided into two main investigators; the first main investigator examined the parties to the claim for nuclear damage, which, in turn, was split into two main sections: the first section examined the claimant, and the second section examined the defendant. The second main investigator of this paper examined civil liability for nuclear damage, which, in turn, was split into two main sections: the first of which addressed the jurisdiction in the claim for liability for nuclear damage, and the second of which dealt with the time to initiate proceeding. The study based its conclusions on several findings and recommendations, the most important of which was to propose amendments to the Civil Liability for Nuclear Damage Act in line with the general rules of civil liability and the Vienna Convention.

**Keywords:** civil procedure law; legal liability in nuclear energy; civil liability; nuclear damage

## 1. Introduction

The UAE legislator issued Federal Decree-Law No. 4 of 2012 on civil liability for nuclear damage, which approached the rules of civil liability for nuclear damage, regulating the provisions and scope of civil liability and compensation for nuclear damage. The law also outlines the operator's obligation to retain a financial guarantee and applies the 1997 Vienna Convention on Civil Liability for Nuclear Damage (The Vienna Convention on Civil Liability for Nuclear Damage of 21 March 1963 and its Amended Protocol of 12 September 1997, ratified by the United Arab Emirates in 2012). The UAE's decision to regulate civil liability for nuclear damage stems from the growing global interest in nuclear energy in many industrial and medical applications as an important source of energy. This interest in nuclear energy requires the elaboration of legislation on rules of civil liability for nuclear damage and is in line with the requirements of international conventions in this regard, particularly the Vienna Convention.

The first unit of the Barakah nuclear power plant was commissioned on 17 February 2020. The Federal Authority for Nuclear Regulation in the United Arab Emirates (UAE) announced the issuance of the operating license for the first unit of the Barakah nuclear power plant by the Nawaat (Nucleus) Energy Company. Nawaat is a subsidiary of the Emirates Nuclear Energy Corporation, which is responsible for operating and maintaining the nuclear unit in Dhafra, Abu Dhabi. Under the license, the Nawaat Energy Company is authorized to operate the first unit of the Barakah nuclear power plant for the next 60 years.

On 1 August 2020, the Emirates Nuclear Energy Corporation (ENEC) announced

a historic achievement, represented by the success of Nawaat Energy in completing the operation of the first plant reactor. On 19 August 2020, the Emirates Nuclear Energy Corporation announced that Nawaat (Nucleus) Energy Company had successfully completed the process of safely connecting the first Baraka peaceful nuclear power plant with the UAE's main power grid, directly after the plant adapted to the requirements of the grid and began producing the first megawatts (MW) of environmentally friendly electricity.

In March 2021, the Federal Authority for Nuclear Regulation issued the operating license for the second unit of the Baraka Nuclear Power Plant for the Nawaat Energy Company, a subsidiary of the Emirates Nuclear Energy Corporation. The company is responsible for operating the plant, located in the Al-Dhafra region of the Emirate of Abu Dhabi. Under the license, the Nawaat Energy Company is authorized to operate the second unit of the Barakah Nuclear Power Plant over the next 60 years. Nawaat Power will begin the period of preparations for commercial operation, during which the Federal Nuclear Control Authority will conduct 24/7 inspections, drawing on its existing inspectors at the Barakah nuclear power plant, to ensure that fuel loading and testing are completed in accordance with the control requirements.

The third unit of the Barakah Nuclear Power Plant was issued in June 2022 by the Federal Nuclear Control Authority as the third unit of the Barakah Nuclear Power Plant for the company Nawaat Energy, affiliated with the Emirates Nuclear Energy Corporation, which is responsible for operating the plant located in the Dhafra area of Abu Dhabi (Fathi, 1980). The use of nuclear energy may result in damage to persons or funds at the state level, which requires the use of civil action to claim compensation for such damage. In general, the possibility of accessing justice to obtain the right's determination or protection, the right to have recourse to the courts to protect the right, or the alleged legal status (Ashour, 2009).

In addition to the general rules in regulating civil liability proceedings in accordance with the Civil Procedure Law, the UAE legislator, in the Law on Civil Liability for Nuclear Damage, has dealt with certain special rules in liability proceedings in Articles 10–12, as parties to liability proceedings, jurisdiction, and procedural date for commencing liability proceedings. The study is based on the United Arab Emirates Civil Liability for Nuclear Damage Act of 2012 and the special provisions it addressed, which relate to liability for nuclear damages. Some of these relate to the status of litigants and the validity of litigation, while others relate to jurisdiction over litigation, including the time period for initiating a claim for compensation. It is necessary to clarify the need to determine the status of a claim for nuclear damages, the court competent to hear the claim, and the time for civil liability for nuclear damages. Who has the right to initiate a claim? To whom is a claim for nuclear damage brought under Article 10 of the Civil Liability for Nuclear Damage Act? What court is competent to hear a claim for nuclear damage under Article 11 of the Act? Under Article 10(3), what is the time limit for recourse to the judiciary in litigation for liability?

The importance of the study stems from the recent adoption of a law on civil liability for nuclear damages by a UAE legislator and the treatment of civil liability for nuclear damages with special provisions in this law. Therefore, it is necessary to take a look at the most important legal provisions in this law and to clarify their legal

dimensions and the extent to which these rules are contrary to the general provisions dealt with by the UAE Code of Civil Procedure, as well as their specificity in the case of civil liability for nuclear damages. All of this is because of the demand by most countries for nuclear energy, which regulates the provisions and the liability resulting therefrom, whether civil, criminal, or international. The damage caused by nuclear energy, if it occurs, is usually of great magnitude, such as radioactive contamination or large-scale damage.

The importance of the study is also linked to the fact that damage caused by radioactive contamination resulting from any incident causing nuclear damage occurring during the transport, operation, or storage of the radioactive source becomes more likely due to the usage of nuclear energy at present. Nuclear damage may result from an accident at a nuclear facility, through the use of nuclear material in medical and industrial applications, through the transport of radioactive sources in ships and aircraft, or through their use in warfare operations such as submarines, ships, and warplanes. There have been numerous incidents involving severe nuclear damage to persons or funds recently, like the 2011 Fukushima disaster in Japan<sup>1,2</sup>.

The United Arab Emirates has paid considerable attention to nuclear energy in recent years through the Nuclear Energy Corporation and the Federal Authority for Nuclear Energy, both of which are working to achieve optimal use of nuclear energy in the United Arab Emirates, especially as the UAE is striving to use nuclear energy efficiently in generating electric power.

In April 2003, in Hungary, nuclear damage occurred as a result of partially damaged fuel from spent fuel rods that passed through the cleaning of a heavy water tank, tearing and leaking fuel into the BAX pellets of the nuclear power plant. On 19 April 2005, in Britain, a leak in nuclear materials, twenty metric tons of uranium and 160 kilograms of plutonium in the solution of 83,000 liters of nitric acid, leaked over several months from a cracking pipe in a stainless-steel swamp in the Thorpe Nuclear Fuel Reprocessing Plant Room.

In November 2005, in the state of Illinois in the United States, tritium nuclear material leaked into groundwater contamination. On 6 March 2006, in Arwin, Tennessee, the United States, nuclear material leaked 35 liters of highly enriched uranium, leaking during its transfer to a laboratory for nuclear fuel services. The incident led to its closure for seven months, requiring a public hearing on the licensing of the factory.

Under the UAE's 2012 Civil Liability for Nuclear Damage Act, this study aims to try to:

- 1) Identification of persons in civil liability proceedings for nuclear damage, whether plaintiff or defendant.
- 2) Statement of the competent court in the case of civil liability for nuclear damage.
- 3) Statement of the legal aspects of the date of commencement of civil liability for nuclear damage.

This study will address the procedural aspects of civil liability for nuclear damages, in accordance with the UAE Federal Law No. 4 of 2012, without going into the general rules of the case addressed by the Civil Procedure Code, except to the extent that they serve some of the aspects dealt with by the Civil Liability for Nuclear Damage Act. This study will not address international or criminal liability, resulting

from nuclear damage.

The Fukushima disaster is a disaster that developed after Japan's 11 March 2011 major earthquake within the Fukushima 1 nuclear reactor. Cooling problems led to high reactor pressure, followed by a venting control problem that resulted in an increase in radioactivity. A Tokyo fire rescue team evacuated Fukushima and evacuated more than 50,000 citizens from the area as a result of the nuclear reactor's radiological threat.

In this study, the researcher followed the analytical descriptive approach, by addressing the legal aspects of the civil liability claim for nuclear damage and attempting to analyse it, to determine the extent to which these legal texts in the liability claim respond to all legal aspects that achieve the objective of regulating the civil liability claim for nuclear damage in special provisions.

The researcher has divided this study into two main investigators, each investigator is divided into two different claims:

- 1) Introduction.
- 2) Parties to the Nuclear Damage Liability Claim.
- 3) Provisions of the Civil Liability Claim for Nuclear Damage.

## **2. Parties to the nuclear damage liability claim**

This investigator addresses the parties to the nuclear damage liability claim by stating who has the right to initiate the nuclear damage liability claim (plaintiff) in a first claim and who of the litigant against whom the nuclear damage liability claim (defendant) is brought in a second claim.

### **2.1. The plaintiff**

Article 2 of the UAE Code of Civil Procedure stipulates that: "No application or payment shall be accepted in which the owner has no existing and legitimate interest. However, the potential interest is sufficient if the purpose of the stand-by application is to pay substantial damage or authentication to a right whose evidence is feared to have disappeared when disputed." Under this provision, anyone who has the legal, personal and direct interest and status<sup>1</sup> could initiate proceedings for damage suffered as a result of the nuclear act. The injured person may also intervene in the public prosecution's action against the nuclear damage, if his or her action rises to the level of the criminal act<sup>2</sup>.

The question arises, too; How can the United Arab Emirates' environmental authorities act against those responsible for nuclear damage, which harms the environment in general?

Accordingly; This requirement deals with injury as a person able to initiate civil action for nuclear damage, and thus with the Federal Nuclear Energy Commission and the Ministry of the Environment and Water.

#### **2.1.1. Harmed (Injured)**

Anyone who has suffered damage to his person or money as a result of the nuclear operator's act may initiate a civil liability action against the operator, and the civil action must have the capacity to litigate and interest of the person conducting it (Al-Husni, 2019). This applies to those directly affected by the nuclear act, such as those

exposed to nuclear radiation directly or indirectly affected by nuclear, as is the case with the use of materials infected by nuclear radiation<sup>3</sup>.

The nuclear damage sustained by the injured person, for the purposes of initiating the action, may be physical (material or moral) or financial damage to the property of the injured person. Those who have suffered material damage, such as illnesses caused by nuclear radiation, can initiate the action, as also those who have suffered moral damage, such as pain in the mother who lost her son's life due to exposure to nuclear radiation, and damage to property as a result of nuclear radiation, the trader whose goods are damaged by nuclear radiation, each has the right to initiate civil action against the operator based on the nuclear reaction result<sup>4</sup>.

Section 2 of the UAE Nuclear Damage Liability Act defines what nuclear damage is and includes:

- (1) Death or personal injury.
- (2) Loss or damage to property.
- (3) Economic losses resulting from loss or damage that do not fall under cases (1) and (2) above incurred by a person entitled to claim compensation for such loss or damage.
- (4) The costs of measures to restore conditions in the damaged environment, unless the damage is minor, if such measures have already been taken or are envisaged, and to the extent not described in paragraph 2 above.
- (5) Loss of income, resulting from an economic benefit from the use or enjoyment of the environment, incurred as a result of severe damage to that environment, to the extent not described in paragraph 2 above.
- (6) The costs of preventive measures and any other loss or damage caused by such measures.
- (7) Any other economic loss, other than losses resulting from environmental damage.

Damage and loss to items (1–5) and (7) arising or caused by ionizing radiation from any radiation source within a nuclear plant nuclear fuel, radioactive products or radioactive waste in a nuclear plant, or attributable to nuclear material originating from a nuclear plant or sent to a nuclear facility or a combination of radioactive and toxic properties, explosive properties or other hazardous properties of such substances<sup>5</sup>.

Article II of the same law defines a nuclear accident as: “Any incident or series of events emanating from a single origin, causing nuclear damage or creating a serious and imminent threat of such damage with respect only to preventive measures”<sup>6</sup>.

Should any of the nuclear damage provided for in Article II, resulting from a nuclear accident be achieved in accordance with the concept of the nuclear accident above, any person affected by it, may institute civil proceedings against the operator or guarantor to demand the cessation of the assault and compensation for the damage.

Criminal proceedings arising from any nuclear damage offence may also be interfered with by the victim if they are initiated by the Public Prosecutor's Office<sup>7,8</sup>.

Under section 11 of the Civil Liability for Nuclear Damage Act, the operator may have the right to claim in two cases:

- (1) If an explicit text is contained in a written contract.
- (2) If the nuclear accident results from the act or omission of an act, with the intention of causing nuclear damage, the action shall be brought against the person who caused or participated in the act or refrained from doing so.

Under the same Article, the State may initiate proceedings for compensation for the damage it has suffered as a result of the financial losses it has suffered. To the extent that it has made public funds available, if the action covers the difference between the minimum compensation, which is not less than five million Special Drawing Rights (SDRs). According to Article 5/2 of the Law, if the Commission determines the minimum amount of compensation to be less than the amount owed to others, the State shall pay the difference, provided that the ceiling of compensation provided for in the first paragraph of the same Article, which is not more than 450 million SDRs. If the Commission determines that the amount of insurance required to cover under the Civil Liability Act is not available in the domestic or international insurance market, the State shall bear the risk liability, and shall be covered by the State for such loss. If the State pays such sums as a result, it has the right to initiate proceedings against the operator for loss.

We believe that the text of article 5/1 of the Civil Liability for Nuclear Damage Act, which set the ceiling for compensation for nuclear damage at 450 million Special Drawing Rights (SDRs), violated article 61 of the Central Bank of the United Arab Emirates Act<sup>9</sup> which propose that the Nuclear Damage Liability Act provide for the amount of compensation equivalent to the UAE dirham directly, or refer it to the Vienna Convention on the amount of compensation.

### **2.1.2. Federal nuclear energy authority and ministry of environment and water**

Under the Environmental Protection and Development Act No. 24 of 1999, articles 69–72 of the Act establish liability and compensation for environmental damage. Article 69/2 of the Act stipulates that the employees of the Authority and the competent authorities designated as judicial officers may seize any violation of the provisions of the Act and refer the offender in accordance with the procedures in force in the State to the competent judicial authorities.

Article (71) stipulates that anyone who causes harm to the environment or to others by doing or neglecting him or her; As a result of a breach of the provisions of this Law or of the regulations or decisions made in its implementation. It shall be liable for all costs necessary for the treatment or removal of such damages, as well as for any compensation that may arise therefrom.

It should be noted that the Federal Environment Authority, by Decree No. 7 of 2009, has been abolished and its functions entrusted to the Ministry of Environment and Water, with the exception of the competence to be responsible for the peaceful use of nuclear energy, has been transferred to the Federal Nuclear Energy Authority.

Accordingly, the powers relating to environmental damage, resulting from nuclear accidents provided for in the Environment and Development Act, have become the prerogative of the Federal Nuclear Energy Authority. The Ministry of Environment and Water also has to initiate liability proceedings if there is damage to the environment<sup>10</sup>.

Under the liability provisions of the Environmental Protection and Development Act, the Ministry of the Environment or the Federal Nuclear Energy Authority may initiate public action against any person who causes damage to the environment as a result of a nuclear accident, as defined in Article II of the Liability for Nuclear Damage Act, any damage to the environment may be initiated by the Authority or the Ministry

in litigation of the public right to confront the operator or guarantor. The Federal Ministry or Nuclear Authority can initiate a public rights action. Under Article (72) of the Environmental Protection and Development Act, it also has the right to bring a civil liability action through the filing of an action to stop the attack, which is the cessation of nuclear damage to the environment. These claimants also claim compensation for damage to the marine, land, or nature reserves, which is called public harm.

As for damage to private persons or property, the Ministry of the Environment or the Federal Nuclear Energy Authority does not have the power to initiate a claim of responsibility for such damage. Because there is no interest in stirring up this case<sup>11</sup>.

Nuclear damage litigation shall be limited to cessation of aggression and compensation for nuclear damage to the environment, in accordance with the scope of the definition of the environment defined by the Law on Protection and Development of the Environment, whether marine, land-based, or protected environment, without extending to compensation for personal damage.

The environment: According to the text of Article 1 of the Law on the Protection and Development of the Environment, the environment in which various forms of life are manifested consists of two elements: a natural element comprising living beings, human, animal, and plant, other living organisms and natural resources, air, water, soil, organic and inorganic materials, as well as natural systems. An abnormal element encompasses all the things that man has introduced to the natural environment, from fixed installations, roads, bridges, airports and means of transport, and the industries, innovations and techniques he has introduced<sup>12</sup>.

The scope of action for nuclear damage by the Ministry of the Environment or the Federal Agency for Nuclear Energy for the Protection of the Environment is, without extension, in the case of an attack or damage to either of the former elements; Includes damage to persons or private property.

## **2.2. Claim defendant (operator and guarantor)**

The law places responsibility on the nuclear reactor operator and the operator's guarantor. The question arises as to the extent to which this action can be brought against the state to claim compensation for nuclear damage. Therefore, we will deal with the liability of the operator first, and then we will deal with the guarantor second, and then we will deal with the extent to which civil liability for nuclear damage may be brought against the state in the third.

### **2.2.1. The operator**

The operator is the person authorized by the Nuclear Energy Authority to operate a nuclear plant and named in the license issued in accordance with Federal Law Decree No. 6 of 2009<sup>13</sup>.

The first paragraph of Article 10 of the Liability for Nuclear Damage Act states: "Claims for nuclear damage shall be brought exclusively against the operator or the person who provided the insurance or financial security under the provisions of Article 8, paragraph 1, of this Decree-Law." A claim for nuclear damage is made exclusively against the operator or person providing insurance or financial security, as the insured person or guarantor is liable in accordance with the insurance contract or guarantee

provided by the operator to the Authority; For adoption as insurance or security in case of damage<sup>14</sup>.

The first paragraph of article 3 of the same Act states that: “The operator of a nuclear installation shall be absolutely liable for damage which is established to have been caused by a nuclear accident as set out in article II of the 1997 Vienna Convention.”

Article 4 of the same Act states: “The operator shall be solely responsible for any nuclear damage caused by a nuclear accident in accordance with the provisions of article 2 of the 1997 Vienna Convention.” Article 2, paragraph 1 of the Vienna Convention provides that the operator of the nuclear installation shall bear the nuclear damage established to have been caused by a nuclear accident.

In accordance with the Vienna Convention in Article II, the operator is liable—fully—for nuclear damage if it occurs a nuclear accident caused by the nuclear damage caused by that accident.

The operator shall be responsible for nuclear material originating from the operator’s plant in several cases such as:

- (1) if the incident occurred prior to the transfer of nuclear material to another operator under a written contract.
- (2) before the operator of another nuclear facility takes care of the nuclear material.
- (3) Before the nuclear reactor is moved, to be installed in a means of transport, to be a source of driving forces or used in that means.
- (4) If the nuclear material is sent to an operator in another State that is not a signatory to the Vienna Convention, and before such material is discharged from the means of transport it has delivered to the territory of that non-Contracting State.

The operator shall be responsible for the nuclear material sent to the operator’s facility in these cases:

- (1) After the responsibility for nuclear accidents has been transferred to him by express provisions in a written contract from the operator of another nuclear facility.
- (2) After the operator has assumed control of the nuclear material.
- (3) It was supplied with nuclear material, and it was imported from a person operating a nuclear reactor on a means of transport to be a source of power, whether propellant or for any other purpose.
- (4) If, with the written consent of a person in a non-Contracting State, the nuclear material was sent to the operator after the nuclear material was shipped on the means of transport which would carry it outside the territory of that State.

By the foregoing, it appears that the operator is liable for nuclear damage caused to persons or property resulting from nuclear material if in possession and disposal, and action is taken against it. Liability is denied when such nuclear material is removed from the operator’s possession, so it enters into the possession of another person, and nuclear damage occurs after such departure. The operator’s liability also disappears under Article IV of the Vienna Convention if nuclear damage has resulted from armed conflict, acts of aggression, civil war, or civil disobedience. Under Article V of the Vienna Convention, the operator is not liable for damage to the nuclear facility itself or any other nuclear facility, even if it is under construction at the site where that facility is located and any property at that site is intended to be used or intended to be



used for the purposes of any nuclear facility.

According to Section (7) of the UAE Nuclear Damage Liability Act, the Court may partially or wholly relieve the operator of the obligation to compensate if it is established that the nuclear damage was caused by gross negligence of the victim himself or by an act or omission; with a view to causing harm<sup>15</sup>.

The Liability for Nuclear Damage Act did not address the extent to which the operator was liable for damage caused by force majeure or by third parties. Was the operator liable for damage caused by force majeure? Nuclear damage is conceivable to result from force majeure; as in the 2011 Fukushima disaster in Japan, triggered by an earthquake and tsunami.

According to the researcher, the silence of the Civil Liability Act requires the application of the general rules set forth in the Civil Transactions Act, which dispense with liability if the act results from force majeure<sup>16</sup>.

The researcher suggests that the Civil Liability for Nuclear Damage Act be dealt with by the legislator in a special text, which identifies the cases of loss of liability of the operator; The failure to provide for the absence of liability of the operator for nuclear damage may be interpreted as the operator being liable for nuclear damage caused by force majeure.

Under Article 6 of the UAE Act on Liability for Nuclear Damage, the Authority may consider that any transporter of nuclear material or transporter of nuclear waste is an operator of nuclear material, as long as it is in possession during transport or handling, the claim for liability for nuclear damage can be brought against it since it is liable for nuclear damage to third parties; As a result of its miscarriage or handling, if nuclear damage was caused by nuclear material without negligence or fault of the carrier or transporter, but rather by the original operator transporting nuclear material; For example, as a result of the preservation method, or the failure to report that it is nuclear or other material, the operator shall bear such damage.

Where more than one operator is liable for nuclear damage, proceedings can be instituted against all of them as joint and multiple liabilities, provided that the amount of compensation does not exceed, in general, the amount of compensation legally determined by each individual as independent<sup>17</sup>.

In the event of a nuclear accident at various but one-person nuclear facilities, he or she would be liable as an operator for all nuclear damage caused by the nuclear accident<sup>18</sup>.

According to article V, paragraph 1, of the Nuclear Liability Act, the operator's liability may not exceed (450) 1 million Special Drawing Rights (SDRs), roughly equivalent to (2.5) 1 billion AED. According to the second paragraph of the same article, the Commission may establish a minimum liability of the operator for compensation of nuclear damage, for nuclear reactor facilities for research and low power reactors and facilities that process or store nuclear material, provided that the amount is not less than 5 million SDUs to cover the difference between the minimum set by the Authority, Maximum liability limit of SPECIAL DRAWING RIGHTS (SDRS) 450 million<sup>19</sup>.

The researcher's point of view is that, setting a threshold below the amount of the compensation ceiling for facilities engaged in scientific research, low-energy reactors and facilities that process or store nuclear material, should be based on careful

scientific study of the damage that may result from such facilities, because the State. Thus, the difference between the amount determined by the Authority and the ceiling of the amount of compensation of 450 million Special Drawing Rights (SDRs) will be borne. For example, if the Authority determines the minimum amount of 10 million Special Drawing Rights (SDRs) and the damage is estimated at 50 million, the State will bear the difference of 40 million Special Drawing Rights (SDRs).

### **2.2.2. The guarantor**

The first paragraph of Article (10) of the Liability for Nuclear Damage Act states: “Claims for nuclear damage shall be brought exclusively against the operator or the person who provided the insurance or financial security under the provisions of Article (8), paragraph (1), of this Decree-Law.”

Under this provision, the person affected by the nuclear accident may bring a claim of liability, in addition to the operator, against the insurer or guarantor. This litigation finds its basis in the text of article (10/1) above, since the insurer or guarantor, whose insurance or guarantee has been accepted by the Commission, is liable for the injury suffered by the insurer (operator).

The insurance covers all damages caused to third parties and is the liability of the operator. This claim is also found to be the basis of the insurance contract by the insurer or the insurer for damages caused to third parties by the insurer and covered by the insurance contract<sup>20</sup>.

The Federal Nuclear Energy Authority’s approval of the insurance or guarantee amount, under article 8 of the Act, is required by the legislature, and the insurance amount is required to cover the value of the maximum indemnity cap provided for by the Act of 450 million Special Drawing Rights (SDRs).

Under article (8/5) of the Civil Liability Act, where the required insurance coverage is not available in the domestic or global insurance market, after all efforts have been exhausted, the Authority may decide that such insurance coverage is not available, this is where the risks covered under insurance coverage are covered by the State. pending the Authority’s announcement of the availability of insurance coverage, and granting the parties a time limit for obtaining such insurance<sup>21</sup>.

### **2.2.3. The extent to which civil liability for nuclear damage may be brought against the State**

The general origin is that Article 10 of the Law on Civil Liability for Nuclear Damage indicates that the action is instituted exclusively against the operator or insured/guarantor, but through the provisions of the Law on Civil Liability for Nuclear Damage, there are three cases in which the claim for nuclear damage can be brought against the State:

If the State itself is the operator of nuclear energy, there is nothing to prevent it from doing so legally, especially since the State may possess nuclear energy in its health or industrial business<sup>22</sup>, as in the case of the use of nuclear energy in a State’s plant of various kinds, any damage resulting from such use of nuclear energy results in the civil State’s liability to compensate for such damage, as the State is an operator of nuclear energy. The UAE Nuclear Damage Liability Act did not address, in particular, civil liability arising from the use of nuclear energy by the State, and the same rules concerning other operators should not apply to the State. The legislator

should have excluded the State from providing financial security; Because the State is inherently financially full, endeavoring to assume its obligations to individuals, the State must be exempted from obtaining a license from the Federal Authority because the Federal Authority is, essentially, a State. The researcher would propose to the legislator a special text, which would deal with the situation in which the operator was the State or any governmental entity; to exclude from the provision of insurance or financial security, and must be excluded from the licensing procedures required by the Authority.

- (1) In the case provided for in the second paragraph of Article V of the Law, in the event that the Nuclear Energy Authority determines a minimum liability of the operator for nuclear damage to nuclear facilities consisting of research-purpose or low-energy reactors and facilities treating or storing nuclear materials, taking into account the nature of the nuclear installation or materials and the consequences that may result from the nuclear accident, provided that no less than five million special drawing rights are reported, the State shall cover the difference between the minimum limit set by the Commission and the upper limit of liability; 450 million Special Drawing Rights (SDRs). In other words, if the Commission determines—according to this text—The minimum amount of compensation in the amount of 10 million Special Drawing Rights (SDRs), thus causing nuclear damage, estimated at 25 million Special Drawing Rights (SDRs), the aggrieved person may sue the operator for 10 million, and the State for more than 15 million. In this case, the State is a defendant to cover the difference in compensation.
- (2) The situation provided for in article VIII, paragraph 5, of the Law on Civil Liability for Nuclear Damage in the event that the Authority determines that insurance coverage is not available in the operator's domestic or international market, The hazards covered are covered by the State, and if the nuclear accident occurs, The victim may sue the operator and the State for being the owner of the nuclear facility and the State for being the guarantor of the insurance risk and bearing its consequences.

In our view, the authority conferred on the Commission under the above-mentioned paragraphs must be used to the maximum extent to prevent operators from evading their responsibilities for nuclear damage and assuming them by the State. In addition, the State—as a public asset—must not interfere with the responsibility of subjects of private law.

Second Investigator:

Provisions of the Civil Liability Claim for Nuclear Damage:

The rules contained in the Judicial Authority Act and the Civil and Commercial Procedure Act shall apply to proceedings relating to civil liability for nuclear damage, in all proceedings, from the moment of filing with the competent court, until a final judgment has been rendered by the court.

The Act on Civil Liability for Nuclear Damage provided for two procedural issues: the text of article 12 on the determination of the court competent to hear civil liability for nuclear damage and the text of article 10, paragraphs 2 and 3, which dealt with the timing of the claim for liability.

Accordingly, the Civil Procedure Code does not deal with the general procedures

relating to the conduct of proceedings; In order to prevent repetition, this investigator will deal only with the special provisions dealt with by a law on civil liability for nuclear damage, and the jurisdiction and time of proceeding will be dealt with.

### **3. Jurisdiction in civil liability for nuclear damage**

#### **3.1. Jurisdiction of federal courts**

The first paragraph of Article 12 of the UAE Civil Liability for Nuclear Damage Act states that “the federal courts in the Emirate of Abu Dhabi have exclusive competence to hear cases arising under this Decree”. Based on this text, the federal courts in the Emirate of Abu Dhabi have jurisdiction over civil liability for nuclear damage, and the jurisdiction of such cases has not been left to the domestic jurisdiction.

Under article (102) of the UAE Constitution, federal courts have jurisdiction over the following cases:

- (1) Civil, commercial and administrative disputes between the union and individuals, whether the union has a plaintiff or a defendant.
- (2) Crimes committed within the bounds of the permanent federal capital; Except as far as the Federal Supreme Court is concerned; Under Article 99 of this Constitution.
- (3) Personal status issues, civil, commercial and other cases between individuals arising in the permanent federal capital. The domestic courts deal with other disputes, which have not been entrusted to the federal courts, under article 104 of the Constitution, in the sense that the local courts have general jurisdiction in the case of dispute<sup>23</sup>.

It is noted through the text of article (102) above that the federal courts have their role limited to disputes between the Federation and individuals, crimes arising in the Federation’s capital (Abu Dhabi), or civil, commercial and personal disputes arising in the federal capital (Abu Dhabi).

Accordingly, if the dispute arises in Abu Dhabi, the civil liability claim for nuclear damage is under the jurisdiction of the federal courts in Abu Dhabi, under the constitutional provision of the federal courts’ article (102), (3rd paragraph) of the UAE Constitution.

The question that comes to mind in this case, if the dispute is in another emirate, what is the competent court here?

It is noted that, under article (105) of the Constitution of the United Arab Emirates, all or some of the competencies of its local judicial bodies may be transferred by federal law issued at the request of the Principality concerned; Under the previous article, the federal courts of first instance.

On the basis of this provision, the jurisdiction over civil liability for nuclear damages was transferred. The first paragraph of the Civil Liability for Nuclear Damage Act provided for the exclusive jurisdiction of the Federal Court in Abu Dhabi over other federal bodies or local courts in the other Emirates.

##### **3.1.1. Value competence**

In terms of the value of the case, the Magistrates’ Chamber of the Court of First Instance, composed of a single judge, is competent if the value of the action in civil

liability does not exceed 100,000 Emirati dirhams, or has been filed in the form of a corresponding action in a case heard by the Magistrates' Chamber of the Court of Single Judge. If the value of the case exceeds AED 100,000, the competent court in terms of value is the three-judge total chamber, and in any urgent application for civil liability for nuclear damage<sup>24</sup>.

If the value of the claim for nuclear damage exceeds AED 100,000, the case shall be brought before the Court of First Instance in its three-judge district. If the amount of compensation claimed is AED 100,000 or less, it is before the Magistrates' Chamber of the Court of First Instance.

### **3.1.2. Spatial jurisdiction**

In spatial jurisdiction, the Law on Civil Liability for Nuclear Damage departed from the general rules of spatial jurisdiction dealt with by the Code of Civil Procedure, where it went on to specify the spatial jurisdiction of federal courts in the Emirate of Abu Dhabi in the case of liability for nuclear damage, regardless of the defendant's domicile (Operator or guarantor), and regardless of the location of the wrongful act, there is no place for applying the rules of jurisdiction provided for in the Code of Civil Procedure to claims relating to liability for nuclear damage<sup>25</sup>.

According to the researcher, the purpose of establishing spatial jurisdiction within the Code of Civil Procedure in cases of wrongful acts serves two primary objectives. Firstly, it allows for the option of filing the case in the jurisdiction where the defendant resides, a choice that is not obligatory but rather dependent on the plaintiff's preference, especially when legal proceedings are still in the prosecution stage. Secondly, it permits the option of filing the case in the jurisdiction where the wrongful act transpired. This approach helps prevent the added burden of transferring the case to another court and is grounded in the belief that the court where the wrongful act took place is better suited to conduct investigations and assess the consequences of the injurious act.

In light of the legislative intent as articulated in the general rules governing spatial jurisdiction, which allow for the selection of either the court located in the respondent's domicile or the court situated in the vicinity of the injurious act, the researcher contends that the legislator should have entrusted the determination of spatial jurisdiction to the general provisions outlined in the Civil Procedure Code. For instance, if the defendant (referred to as the "operator") was located in the Emirate of Fujairah, and the nuclear injurious act occurred within the same principality, it would be reasonable to consider whether it is acceptable for the proceedings to be adjudicated by the courts in the Emirate of Abu Dhabi. This consideration arises from the belief that the Federal Court of First Instance in Fujairah might possess greater competence in handling such proceedings compared to other courts.

### **3.1.3. Appointment of experts**

It should be noted that article 12, paragraph 3, of the Law on Civil Liability for Nuclear Damage stipulates: "The Court shall appoint one or more experts or specialists to assist it in accordance with applicable laws and legislation."

This text highlights that the legislator has conferred upon the Federal Court the authority to designate one or multiple experts to help in cases involving civil liability for nuclear damage. These types of claims typically necessitate the expertise of

individuals well-versed in nuclear accidents and operations. This expertise is crucial for accurately assessing the extent of damage resulting from nuclear incidents, given the complexity and severity often associated with such accidents.

Through the preceding text, the role of experts or specialists relates to assisting the Court in its work, and in fact the word “assisting” in the above article is incomprehensible in judicial work; It may extend to assisting the court in the hearing and adjudication of the case, which is contrary to the rules on judicial work, and may result in nullity of the proceedings and judgement as a result of the failure of the judgement or procedure of the judicial officer, who is in accordance with the judge’s law.

The researcher recommends that the legislator consider a concise provision such as: “The Court is authorized to appoint an expert or experts for the submission of an expert report pertaining to nuclear accidents, nuclear damage, causation, quantification of damages, and compensation. This approach limits the Court’s role to relying on expertise and examination as evidentiary means, thus avoiding an extension of the Court’s own functions. Matters related to expertise should be governed by the Law of Proof in Civil and Commercial Transactions, which delineates the framework and scope of judicial expertise. The Law on Civil Liability for Nuclear Damage should not delve into the specifics of the expert’s role in aiding the Court.”

### **3.2. Date of commencement of civil liability claim for nuclear damage**

The Act on Civil Liability for Nuclear Damage addresses the issue in Article II and III, Paragraphs (10), which pertain to the commencement date for claims related to nuclear damage liability. According to these provisions, claims for liability for nuclear damage must be initiated within a three-year period starting from either the date when the knowledge of the nuclear damage is acquired or the date when such knowledge should have reasonably been obtained, considering the responsible operator. In other words, the three-year timeframe begins from the moment when there is actual or substantiated awareness of both the nuclear damage and the operator held responsible for said damage.

This period of time for the commencement of proceedings for compensation for the injurious act is consistent with article (298), paragraph 1, of the UAE Civil Transactions Act, which stipulates that the security claim arising out of the wrongful act shall not be heard after three years of the day on which the injured person was informed of the injury and the responsible person.

In the absence of knowledge, the claim for compensation is ageing against the operator, in either of the following cases:

First case: thirty years from the date of the nuclear accident in case of death or personal injury, and ten years from the date of the accident in respect of other nuclear damage resulting from death and personal injury; This is in accordance with article VI, paragraph (a), of the Vienna Convention, transmitted from article 10, paragraphs II and III, of the Code of Civil Liability for Nuclear Damage.

The second case: the expiration of the period of insurance or financial security, if covered for more than the periods provided for in the first case, even if covered by the Government; This is in accordance with article 10, paragraph 2, of the Act and

article VI, paragraph 1 (b), of the Vienna Convention.

In the above two cases, more time was granted to initiate proceedings for damage arising from civil liability for nuclear damage than under the general rules of the Civil Transactions Act, which required that proceedings be initiated within 15 years from the date of the incident causing damage, in accordance with article 298, paragraph 3, of the Civil Transactions Act.

The time required to initiate proceedings is governed by the cessation and interruption provisions of the Civil Transactions Act, as the Civil Transactions Act is the general sharia for limitations, and the cessation and interruption provisions of the Civil Transactions Act apply to civil liability for nuclear damage.

#### **4. Conclusion**

This study delved into the procedural aspects of claims for nuclear damages within the framework of the UAE's Nuclear Damage Liability Act No. 4 of 2012 and in accordance with the stipulations outlined in the 1997 Vienna Convention on Civil Liability for Nuclear Damage. Two main sections, each handled by a different investigator, structured the study. The first investigator focused on the parties involved in nuclear damage claims, addressing two key aspects: the first pertained to the claimant (the injured party), while the second addressed the respondent (the operator and guarantor).

The second part of the study examined the provisions related to civil liability for nuclear damage cases. The first aspect of this examination centered on jurisdiction, while the second aspect delved into the procedural timelines for these cases. In reference to the numerous findings and recommendations relating to the claim for nuclear damage, the study has concluded the following:

##### **4.1. Results of the study**

- (1) The UAE's Civil Liability for Nuclear Damage Act is, in most provisions, consistent with the Vienna Convention on Civil Liability for Nuclear Damage.
- (2) Civil liability for nuclear damage is brought exclusively against the operator or guarantor, and the study found that a State could be sued in three cases:
  - a. If the State is the nuclear power operator.
  - b. If the State is the guarantor of liability in the event that the Federal Nuclear Energy Authority determines that the amount of insurance cannot be saved at the domestic or international level.
  - c. In cases where the Nuclear Power Authority establishes a minimum compensation amount for nuclear facilities that include research reactors or low-power reactors, as well as facilities engaged in the processing or storage of nuclear materials, and this minimum amount falls short of the determined verdict, the State shall assume responsibility for covering the shortfall between the minimum amount set by the Authority and the court-awarded amount. However, it is important to note that this reimbursement shall be subject to the condition that it does not exceed the total value of 450 million Special Drawing Rights (SDRs).
- (3) The Civil Liability for Nuclear Damage Act did not address some of the

operator's loss of liability; it did not provide for relieving the operator of liability; The result of force majeure or the act of another.

- (4) The Federal Nuclear Energy Authority's powers are preferred to be used in articles (5/2) and (8/5) to the extent possible; because its result may be the responsibility of the State for nuclear damage, although the act causing nuclear damage was carried out by a private law operator.
- (5) The spatial jurisdiction of the Abu Dhabi Federal Court of First Instance is incompatible with the general rules of competence set out in the Code of Civil Procedure and does not achieve considerations and wisdom in determining the spatial jurisdiction that the legislator has sponsored in the Code of Civil Procedure.
- (6) The date of initiation of proceedings in the Civil Liability Act is consistent with the general rules of the Civil Transactions Act; in terms of initiating proceedings from the date of knowledge of the damage and the operator responsible for it, which is three years. It did not provide for the date of the claim's general loss, but under the Vienna Convention, the claim for nuclear damage is limited to thirty years in the event of death or personal injury, and ten years in other damage.

#### **4.2. Recommendations of the study**

- 1) The researcher believes that the UAE legislature, in its Civil Liability for Nuclear Damage Act, should provide special provisions relating to the responsibility of the state if it is the operator of nuclear energy, especially exempting it from the provision of insurance or financial security.
- 2) In the opinion of the researcher, the Federal Authority for Nuclear Energy should exercise its powers under Articles 5/2 and 8/5 only to the narrowest extent; the serious consequences for the state.
- 3) The researcher is of the opinion that the Emirati legislature should address the liability of the operator in the event of a nuclear accident; The result of force majeure or the action of another.
- 4) The researcher suggests that the UAE legislature should consider a revision of the competent court for adjudicating civil liability cases related to nuclear damages. The proposed revision would limit jurisdiction to the federal courts while maintaining the option to file the claim in either the operator's domicile or the location where the injurious act occurred. This adjustment would avoid the restriction of jurisdiction solely to the Abu Dhabi court, allowing for a more flexible and geographically appropriate venue for such cases.
- 5) According to the researcher's viewpoint, the UAE legislature should contemplate the implementation of a consistent statute of limitations for legal actions, commencing from the date of a nuclear accident. This strategy would harmonize with the guidelines articulated in the Vienna Convention. To be specific, it is recommended that the statutory timeframe be standardized at thirty years for cases related to death and personal injury, and at ten years for other categories of damages. This alignment would facilitate clarity and adherence to international standards in addressing nuclear damage claims within the UAE's legal framework.



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## Notes

- <sup>1</sup> Ashour Congratulations, *Studies in Judicial Law in the United Arab Emirates*, Book I, Dubai Police Academy, 2009, p. 469 ff. Abdou Jamil Ghosob, *Summary in Civil Procedure Law*, University Institution of Studies and Publishing, 2010, pp. 158 et seq.
- <sup>2</sup> MERVAT Mohammed Al-Baroudi, *Legal Organization for Countering Nuclear and Radiological Accidents and Compensation for Their Damage*, Arab Renaissance House, 2012, p. 46.
- <sup>3</sup> MERVAT Mohamed El Baroudi, op. cit., p. 46. Muhammad Abu Zeid, *Lights on the Texts of a Decree on Civil Responsibility for Nuclear Damage*, *Journal of the Dubai Judicial Institute*, No. 2, Year 1, p. 212.
- <sup>4</sup> Ghada Shahide, *Product Civil Liability, Comparative Study*, 2007, p. 248.
- <sup>5</sup> The provisions of this article of the UAE Law on Civil Liability for Nuclear Damage; in accordance with article I, paragraph (k), of the Vienna Convention on Civil Liability for Nuclear Damage.
- <sup>6</sup> It corresponds to the text of article I, paragraph (l), of the Vienna Convention on Civil Liability for Nuclear Damage.
- <sup>7</sup> Mervat Barrudy, previous reference, p. 46.
- <sup>8</sup> Article 61 of the UAE Central Bank Law states: “The monetary unit of the United Arab Emirates is the dirham, referred to as the DE, divided into one hundred equal units, each called the waltz.”
- <sup>9</sup> See the website of the Federal Nuclear Energy Authority: [www.fanr.gov.ae](http://www.fanr.gov.ae). The Federal Authority for Nuclear Energy (FENEC) is active in the inspection of facilities using nuclear energy. See the inspection reports available on the FENEC website at <http://www.fanr.gov.ae/Ar/AboutFANR/InspectionReports/Pages/default.aspx>
- <sup>10</sup> See also the website of the Ministry of Environment and Water, <http://www.moew.gov.ae/Portal/ar/home.aspx>
- <sup>11</sup> Atta Saad Muhammad Hawass, op. cit., 21–22.
- <sup>12</sup> See: *On Elements of the Environment*: Kazem Al-Muqaddadi, *Fundamentals of Ecology*, p. 15. [www.ao-academy.org/docs/01/03/2013](http://www.ao-academy.org/docs/01/03/2013)
- <sup>13</sup> According to article 2 of the Law on Civil Liability for Nuclear Damage. The licence is granted in accordance with the Peaceful Use of Nuclear Energy Act No. 6 of 2009. See also Mohamed Abdelatif, *Terms of Nuclear Law*, article in the Egyptian newspaper *Al-Ahram*, in 17/3/2010.
- <sup>14</sup> Ismail Al-Husni, *Civil Officer of the Nuclear Operator in accordance with Decree-Law No. (4) of 2012 on Civil Liability for Nuclear Damage and the 1997 Vienna Agreement on Civil Liability for Nuclear Damage*, Master’s thesis, UAE University, 2019, p. 69.
- <sup>15</sup> Mohammed Sadat, previous reference.
- <sup>16</sup> Article 287 of the UAE’s Code of Civil Procedure states: “If a person proves that the damage was caused by a foreign cause in which he has no interest as a celestial lesion, a sudden accident, force majeure, the act of another or the act of the aggrieved person, he is not bound by the guarantee, unless the law or the agreement stipulates otherwise.”
- <sup>17</sup> In application of article 2, paragraph 3 (a), of the Vienna Convention
- <sup>18</sup> Pursuant to article 2, paragraph 4, of the Vienna Convention, Ahmed Al-Hiyari, *Ensuring Compensation for a Nuclear Accident in Jordanian Law*, *Journal of the International College of Law, Kuwait*, No. 4, Year 5, 2017, p. 154
- <sup>19</sup> Consistent with the text of article 7.1.b of the Vienna Convention.
- <sup>20</sup> Ayham Salman Al-Wasuf, *Civil Liability Insurance and Applications in Syrian Companies* Syrian Kuwait Insurance Company, Master’s Thesis, Damascus University, pp. 12–13.
- <sup>21</sup> This article is consistent with article 7/1/a of the Vienna Convention.
- <sup>22</sup> The use of nuclear energy was regulated by the United Arab Emirates’ Decree-Law No. 6 of 2009 on the peaceful use of

nuclear energy

- <sup>23</sup> Ashoor Mabrouk, previous reference, p. 317. Ahmed Abdul Zahir, Relationship between Federal and Local Justice, Study in UAE Law, p. 4. See website: [www.omanlegal.net](http://www.omanlegal.net) on 1/3/2012.
- <sup>24</sup> Hassan Arab, Court Litigation in the United Arab Emirates, Rights Publications, Part I, 2010, pp. 86–87. See: Article 30 of the UAE Civil Procedure Code.
- <sup>25</sup> Mohammed Mohammed Abu Zeid, former reference.

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